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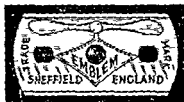
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WAR OFFICE

TRAINING REGULATIONS

1934

LONDON

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THE WAR OFFICE,
28th February, 1934.

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TRAINING REGULATIONS, 1934

CHAPTER I

PRINCIPLES AND SYSTEM OF TRAINING

1. Object of training

1 The object of military training is to prepare the Army for war. Success in battle is the ultimate aim.

2 In a world wide Empire the Army may be called upon to fight in developed or undeveloped countries, and under every condition of climate and ground. In India, and in certain other parts of the Empire, the following are the

categories —

- i Imperial policing
- ii Minor expeditions, possibly on peace establishments.
- iii Major expeditions, which may or may not include the Territorial Army.
- iv A national war

The problem of formulating a system applicable to all situations is a difficult one. Different conditions demand large variations in training for leadership, in tactics, in administration, and in the conduct of campaigns.

3 The principles which govern the employment of the Army in war are laid down in Field Service Regulations. The instructions in training manuals and training memoranda are based on these principles, and are issued to ensure uniformity of doctrine in training and unity of action in war.

4. The aim in training must be to produce efficient leaders, a well-trained staff, units well disciplined, hardy and skilled in the use of their weapons, and administrative services familiar with their war responsibilities.

5. It is important to recognize the great expansion of our existing forces which a national war would demand. In order to meet the conditions which would then prevail, all officers and non-commissioned officers must be fitted in peace to fill appointments in war considerably higher than those which they normally hold, and be capable of acting as efficient instructors in the training for war of newly raised troops.

A national war will demand the mobilization of all the activities of the nation, and not merely those of the fighting services. Economical organization of industry will be of vital importance, as will also the application to war of the most modern resources of science. Officers must, therefore, endeavour in peace to keep abreast of modern thought, so as to be able in war to take advantage of scientific progress, which is continuous, and also of the constant changes in industrial organization and methods of production. The knowledge so gained, together with an understanding of the psychology of their fellow-citizens, is essential if commanders are to be capable of handling experts and directing their efforts to the best advantage.

2. Essential characteristics of an army

LEADERSHIP

1. The efficiency of an army depends on the efficiency of its leaders; this is even more the case now than in the past, since decentralization of command, due to modern weapons, throws increasing responsibilities on junior commanders, while the complications of modern warfare render the demands on higher leadership more onerous. The primary task of all training therefore will be the education, practical instruction, and exercising of leaders and potential leaders.

2. Leadership depends on simple and straightforward human qualities. A leader, above all, must have the confidence of his men. He will gain their confidence by commanding their respect—respect for his determination and his ready acceptance of responsibility; for the clearness and

1. The leader must have the firmness in which he insists
 knowledge
 common
 thought,
 personal
 is men's
 hardships; for his cheerfulness in face of difficulties; and
 for the obvious pride he takes in his command

3 The leader who wins his men's confidence has attained

4 A leader must also have confidence in himself. The
 ability to command, developed by actual practice in the

MORAL QUALITIES

5 The development of morale is a vital object of training. Moral qualities include discipline, the fighting spirit, the will to win, self control, self respect, loyalty, and a high sense of honour.

FIGHTING SPIRIT

6. The final test of a unit is its fighting spirit, which is

The skill at-arms derived from constant practice, and the physical fitness derived from physical training and games, are essential for efficiency and contribute directly to this fighting spirit.

DISCIPLINE

7. Discipline, by means of which the morale of a force can best be maintained, is the bedrock of all training. It is the permanent habit of cheerful and unhesitating obedience which creates and directs the fighting spirit.

8. Discipline is taught by the combined effects of drill and physical training, mental training, and the inculcation in the man of pride in his unit and in himself.

PHYSICAL TRAINING

9. Fighting spirit, discipline, *esprit-de-corps*, and mobility are bound up with physical fitness. The efficient fighting man requires a sound mind in a fit body. For this the physical exercises of drill and physical training are most valuable for developing quickness of mind and eye, but are not by themselves sufficient. Fitness of body and contentment of mind come more readily in the free atmosphere of games.

MENTAL TRAINING

10. The conditions of modern warfare necessitate considerable decentralization of responsibility to junior leaders and individuals, while modern armament with its scientific development demands knowledge from all who handle it. The soldier must therefore be intelligent, adaptable, and capable of acting on his own initiative. These qualities are developed by educational training which, though it includes instruction and study not purely military in character, is an integral part of military training.

11. Since the soldier has eventually to return to civil life he should be given every encouragement to learn some trade, and such facilities as exist for instruction of this kind should be carefully developed.

SKILL-AT-ARMS AND FIELD CRAFT

12. All operations of war lead to the application of weapons and all plans must fail if the weapons are not effectively employed. It is therefore essential that a man should have a thorough knowledge of his weapons and their use, and that he should appreciate the necessity for their proper care and maintenance. He must be so practised that in an emergency he will instinctively use his weapons to the best advantage in

which the individual has obtained in all the weapons with which he is armed, thereby giving him a feeling of superiority

13 In war the fighting man needs many of the qualities of the primitive hunter. Though these qualities are elementary, the conditions of peace and present-day civilization call them into play to a very limited extent. Fieldcraft must therefore be acquired afresh by the soldier. He must learn to observe, to conceal himself and to listen; he must be able to remain motionless or to appreciate instinctively the protection afforded by ground and by natural cover; he should be accustomed to work in darkness.

3. Responsibility for training

1 The main principles of the responsibility for training are,—

i That the commander of each unit or sub unit shall be responsible for the training of his command (See also Sec 4, 11)

ii That all ...

of instruction are to be encouraged.

2. While strict adherence must be given to the principle that each commander is to be made wholly responsible for the training and efficiency of his command, his superiors must not forego their functions of guidance and control. They should exercise a general supervision which, without curbing initiative or taking the form of interference, should ensure that the training shall be always on sound lines.

Criticism of a discouraging nature tends to discourage initiative and originality.

3. Schools of instruction exist to ensure to all arms and units throughout the Army a supply of officers, warrant officers, non-commissioned officers, and men with the latest knowledge in specified subjects. It is the duty of commanding officers to ensure that suitable officers and non-commissioned officers are sent to these schools, and that they are qualified by previous instruction to obtain full benefit from the courses held. It is also the duty of commanding officers to see that these officers and non-commissioned officers on their return disseminate the knowledge they have gained. Details of instruction given at schools are contained in King's Regulations and in Courses of Instruction.

4. System of training

PRINCIPLES OF INSTRUCTION

1. In addition to leaders for war, the Army must produce instructors for peace: the development of powers of instruction is therefore an important part of training: all officers and non-commissioned officers need systematic education in the art of instruction.

The following notes on teaching are framed for the guidance of junior leaders, but the principles on which they are based should be applied by commanders of all ranks and at all stages of training, and are stressed in the instructions regarding the various training activities dealt with in these regulations.

2. A distinction is necessary between instructing and lecturing. The instructor deals with a small class, preferably six or seven: he aims at educating each individual: he makes the class take its share in the lesson. On the other hand, the lecturer addresses a mass and pre-supposes a certain level of knowledge. (For remarks on lectures, see Sec. 18.)

3 A good instructor requires the following —

- i Common sense
- ii Enthusiasm
- iii Sympathy with and interest in those under instruction and an understanding of their outlook
- iv Knowledge of his subject
- v A clear idea beforehand of the lessons to be taught and how he proposes to teach them
- vi The ability to encourage by praise where praise is due and to avoid sarcasm

There must be a clear object in the instructor's mind for every lesson. To train without system and foresight is waste of time.

4 No method of instructing will be effective unless it possesses two essentials —

- i Simplicity
- ii Interest

The instructor must set out to teach one lesson only at a time. Unessential details obscure the lesson and confuse the mind of the learner.

The business of the instructor is to present his lessons in an interesting and varied shape. They may take the form

.

Training should not be delayed because of the backwardness of one or two individuals. Such men should be given extra instruction to bring them up to standard.

5 The commander must expect and look for mistakes. It is by pointing out and correcting mistakes that training progresses. Provided encouragement follows correction criticism of faults due to slackness or neglect should be unsparing, but criticism of shortcomings after an honest attempt must be such as will produce a further and better effort. Good work should always be acknowledged.

6 The two main channels of instruction are by the eye and the ear. The usual tendency is to train too much by

ear and not enough by the eye. The brain retains more dily and firmly what it sees than what it hears. An tractor must train, therefore, more by the eye than by e ear. The following sequence of instruction will be opted when practicable :—

- i. Explanation.—Instruction by the ear.
- ii. Demonstration.—Instruction by the eye.
- iii. Execution.—Testing practically the results of the instruction and correcting mistakes.
- iv. Repetition.—Practice to gain improvement.

PROGRAMMES OF TRAINING

7. Formation and unit individual and collective training programmes constitute an important basis of training. It is the duty of all commanders to examine the programmes prepared by their subordinates, and, while allowing them the fullest latitude, to assist where necessary to improve their programmes and schemes; commanders can thus ensure that the training is properly organized and can guide their subordinates without interfering with their responsibilities.

REGULAR FORCES

8. The training of the regular soldier may be divided into :—

- i. Educational, physical and recreational training.
- ii. Military training.

The aim of i., which is dealt with in Educational Training and the Manual of Physical Training, is to improve him mentally and physically as a subject for ii., and to make him a more useful citizen on return to civil life.

9. The training both of the individual and the unit will be progressive and continuous.

10. The initial training of the recruits, officer or man, is the foundation of his military efficiency. It is to be designed to develop the mental, moral, and physical qualities of each individual.

The nature of the training given in elementary stages should vary according to the arm of the service and the capacity of those under instruction. The more complicated the arm the longer will be the period of initial training. This initial instruction is almost entirely a matter of individual training, though the object of making the individual one of

a team must receive consideration. In order to maintain efficiency, initial training requires annual repetition, varying in degree with the capability of the individual.

11 The first principle of training is that the individual

- i Individual training
- ii Collective training

The object of individual training is to prepare the individual for the duties which he will be required to carry out in war as a member of a sub-unit. The object of collective training is to make sub-units, units and formations in succession, capable of manœuvre and co-operation in battle.

As the season for trooping leave and furlough in most stations corresponds with the period allotted to individual training the paucity of numbers present with units may render the principle that sub-unit commanders should be solely responsible for the training of their commands inapplicable in its entirety. To ensure economy of effort, and to employ to the best advantage the limited number of fully trained instructors available a reasonable centralization as regards the individual training of officers and non-commissioned officers is permitted.

12 Individual training is the annual repetition of the

ing manuals of each arm)

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commanders. In this stage of training the necessity for co-operation between arms and services must be kept constantly in view. In higher collective training units combined in formations which themselves form part of higher formations learn to operate effectively under the control of a higher commander.

4. General officers commanding-in-chief will determine dates of the commencement of the individual and collective training periods for the troops in their commands. The periods will be chosen to suit climatic and other conditions.

TERRITORIAL ARMY

15. The role of the Territorial Army, in addition to that providing the sole means of expansion to form a national army, includes the liability of supporting the Regular Army overseas in the event of war.

16. The training of the Territorial Army in peace will therefore be devoted towards ensuring that the shortest possible time will be required after embodiment to complete its training for war.

17. The first step towards this object is to concentrate on the training of leaders and specialists, so that on mobilization there will be a sufficient number of trained personnel to fill the positions held by officers, warrant officers, and non-commissioned officers in units, and sufficient instructors to train the recruits required to make up to war establishments and the personnel to throw off cadres.

18. The conditions for training of the Territorial Army differ from those of the Regular Army, owing to the short periods available and other limitations imposed by its organization. Consequently, under the supervision of the divisional commander, it is the responsibility of commanders of brigades or of equivalent formations to ensure that all efforts are concentrated on teaching officers and non-commissioned officers the art of leadership so as to fit them for command, and to train them as instructors so as to make them capable of teaching those under them.

19. Under the orders of the commanding officers, permanent staff instructors must devote their attention to the instruction of non-commissioned officers and specialists. Territorial Army officers, warrant officers, and non-commissioned officers must be responsible for the training of their own men.

20. Every opportunity should be taken by leaders and specialists to attend week-end courses at regular depots, command or local courses of instruction, simple tactical exercises without troops, and collective training exercises prior to annual camp.

7. Training in defence against gas

anti gas defence

2 The object during the individual training period is to render all ranks proficient in the use of their anti gas equipment, and confident in its efficiency and to ensure that they have a knowledge of the various methods by which gas might be employed

8. Administrative training

1 Officers and NCOs will be instructed in the various administrative duties with which they may be faced in peace and war. Such instruction will include —

- i Discipline, court martial procedure, pay duties, and accountancy, messing and interior economy within the unit, in peace and war
- ii Medical services and the care and evacuation of wounded in war, hygiene in peace and war
- iii. Billeting duties and accommodation of troops in war.
- iv The war time system of provision and maintenance of food, water, ammunition, petrol, and ordnance stores.

2 Apart from matters of interior economy within units, administrative work in peace has little relation to the administrative requirements of war. It is therefore of special importance that staffs and services should receive systematic training in their administrative war

3. A vital problem of every higher commander in war is how to maintain the energy and efficiency of his force: questions of supply, maintenance, communications, accommodation, the morale and health of troops, etc., are involved. Practice in dealing with such problems can to some extent be given at manœuvres, but must be chiefly sought in exercises without troops. (See Secs. 26, 12, 28, 1, 29, 1, 34, 5, and 47, 1.)

9. Training in co-operation with Royal Air Force units

1. In war the Army is dependent on aircraft for the performance of certain important duties. The units of the Royal Air Force provided to carry out these services operate under the orders of military commanders and in close co-operation with the various arms of the Army. It is therefore necessary for co-operative training between the two Services to be directed so as to ensure that—

- i. officers of the Army become familiar with the powers, limitations, and requirements of the Royal Air Force; and
- ii. officers of the Royal Air Force are instructed in the organization, tactics, and employment of the Army to enable them to perform the duties required of them in war.

In addition, personnel of both services must be trained in methods by which co-operation is achieved between troops and aircraft.

2. In order to facilitate co-operative training, army co-operation squadrons are affiliated to specific army formations. As far as possible, all arrangements for training should be made direct between the army formations and the squadron commander concerned. Army formations should assist, as far as possible, in the military training of their affiliated Royal Air Force units.

3. Courses held by the Royal Air Force, assisted by the Army, for the instruction of army officers, and courses organized by army formations for instruction of Royal Air Force officers are invaluable as a means of individual training. Suitable courses are:—

- i. Co-operation courses, usually held at army co-operation squadron stations, to instruct senior regimental and junior staff officers of the affiliated formations mainly

in the employment and capabilities of army co-operation squadrons.

- ii. Interpretation of air photography courses to train regimental and intelligence officers in the use of air photography. These should be held by a qualified military officer at a Royal Air Force centre or school where facilities are available.
- iii. I.L.O. and S.A.O. courses.—A special course held at the School of Army Co-operation, R.A.F., or at a suitable Royal Air Force station abroad under military and air force instructors to train the personnel of intelligence liaison sections.
- iv. Courses held by army formations for the training of Royal Air Force officers in military matters should be arranged by army formations for the junior officers of their affiliated squadrons. Instruction should include organization, tactics, and other military subjects, knowledge of which it is essential for an army reconnaissance pilot to have.

In addition to the courses mentioned above, the following are recommended:

4 Officers of the intelligence liaison sections (I.L.O. and S.A.O.) attached to army co-operation squadrons should

S.A.O.s remain with their squadrons for a year after appointment and the section, including I.L.O., draughtsman, and clerk should function as a whole throughout the collective training season.

5 The attachment of army officers to Royal Air Force units and the Royal Air Force officers to army units for short periods is of value. Interest is stimulated and the elements of co-operation are learned by visits of army officers to

in the employment and organization of army co-operation squadrons.

ii Interpretation of air photographs issued to the regimental and intelligence officers in the use of air photography. These should be held by a qualified military officer at a Royal Air Force school where facilities are available.

iii I.L.O. and S.A.O. courses—A special course to be held at the School of Army Co-operation, R.A.F., or at a suitable Royal Air Force station where suitable military and air instructors to train the personnel of intelligence squadrons.

iv Courses held by army formations for the training of Royal Air Force officers in military matters should be arranged by army formations for the better officers of their staffs of officers. Lectures should include organization tactics and other military subjects, knowledge of which it is essential for an army reconnaissance pilot to have.

In addition to the courses mentioned above, instruction in co-operation should be included in lectures given by commands and courses held at military schools, and where being given, if possible, by officers of intelligence squadrons.

4 Officers of the intelligence liaison sections (I.L.O. and S.A.O.) attached to army co-operation squadrons should assist the squadron commander in the training of the squadron during the season.

and I.L.O., during the training season.

5 The attachment of army officers to Royal Air Force units and the Royal Air Force officers to army units for short periods is of value. Interest is stimulated and the experience of co-operation are learned by visits of army officers to affiliated squadrons.

The attendance of junior Royal Air Force officers at tactical exercises, with and without troops, to learn the elements of tactics of the various arms is essential, but best value is obtained if such attendances are made in connection with the courses outlined in para. 3 iv above.

indoor training on a battery station, and of value. Artillery give such training.

and its allotment

on training

at home will submit. The War Office, by report (twelve copies) to the Army, carried will include recommendations. Commissions will submit.

1 Staff will issue and reports and on training period before the following

1st May
1st January

allow the attendance during where prisoners and training looked, or where how the direction

memorandum will detail with the in experimental

by issue similar to the notice issued in the General Staff in which they

consider requires special attention by the troops under their command. Copies of these, and of all other memoranda and instructions on training issued by general officers commanding-in-chief at home, will be forwarded to the War Office.

4. The issue of treatises on training by subordinate commanders is forbidden. Such treatises tend to confusion of thought and neglect of the study of the official training manuals, on which the attention of all ranks should be concentrated.

12. Policy governing the issue and use of maps for training

1. The policy and organization for map supply in war are laid down in the Manual of Military Intelligence; they are based upon the fact that maps of some sort are necessary for all types of operation, and that in certain circumstances the development of the full power of modern arms in co-operation is dependent on the possession of maps which are not only accurate but of suitable scale. To meet these requirements the following types of map are issued :—

- i. Small scale.—These are used for strategical and general purposes; the normal scale is $1/250,000$, but smaller scales may be issued as necessary.
- ii. Medium scale.—These are used for all ordinary tactical and administrative purposes, the normal scale being $1/50,000$.
- iii Large scale.—These are prepared only for limited areas, to meet the requirements of deliberate operations; the normal scale is $1/25,000$.

Although these scales are adopted whenever completely new maps are prepared, occasions will arise when it may be more convenient to use some existing map, differing slightly from the normal scale of its type.

Much of the world is still unmapped. Although air photographic survey makes it possible to produce good and up-to-date maps in the field, provided the area can be photographed well in advance of the operations, and although units are provided and equipped for the purpose, it may happen on occasions that, for various reasons, reliable maps are not available.

2. During training, therefore, what is the most important thing to be kept in view —

1. All troops should be thoroughly instructed in the use of arms and in the use of the machine gun.
2. Occasional training with arms should be given in order to maintain the skill of the troops.
3. The maps to be used for instruction should be of such a nature as to give the troops a clear idea of the situation.
4. For the purpose of training, the troops should be periodically retrained.

3. The maps to be used for instruction should be of such a nature as to give the troops a clear idea of the situation. During collective training, the troops should be instructed on a war scale, the same principles being applied to the peace establishment in the field.

Note.—Details of the procedure of instruction are given in Appendix VII.

13. Cinematograph

1. Recent developments in the use of film for instruction indicate that there is considerable scope for the use of the cinematograph in military training. The use of film for instruction is subject to the following subjects.

A list of the films available is contained in the Catalogue of the Council Instructions.

2. Before showing a film, an instructor must ensure that it is suitable for the state of training of his troops.

3. Since at present all training films are shown in short series, a short lecture is issued with the film. This is a departure from the usual practice of issuing a short lecture as a basis for a running commentary on the film, which is essential by the commentator is essential.

CHAPTER II

INDIVIDUAL TRAINING—THE TRAINING OF
OFFICERS AND SENIOR NON-COMMISSIONED
OFFICERS

14. General instructions

1. The training of officers and senior non-commissioned officers must be designed to lay foundations and build progressively upon them, so that officers and non-commissioned officers are fitted for promotion in the ordinary course, or to meet expansion of the Army due to a major war; further, the system must ensure that senior commanders and staff officers are fitted for their responsibilities in peace and war.

2. It must be the aim of all unit commanders to train non-commissioned officers for work in a higher grade than that which they hold: in the cavalry, artillery, and infantry, serjeants must be prepared to command troops, sections, and platoons—in war, they will certainly do so. The same principle will be applied in other arms.

15. Training of young officers on first appointment
to regular commissions

1. The training given to young officers at the cadet colleges in England, though it has a strong military bias, is primarily one of general education; the military part of the training is on broad lines, and is intended to give a sound grounding on which later study and training can be based. It must therefore be realized that the young officer receives his essential military training after he has received his commission.

2. Officers commissioned from the Royal Military Academy go at once to the school appropriate to their particular arm of the service, where they receive their elementary technical military education before joining their units.

Officers commissioned from the Royal Military College go straight to their units, and proceed later to weapon training and other courses at the various military schools.

3 It is essential that the military training of the young officer on joining his unit should be carefully organized. This applies particularly to young officers commissioned to the cavalry, infantry, and the Unattached List for the Indian Army, who join service units direct from the cadet college and prior to receiving their initial technical military training at the appropriate schools of their arm of the service. In the case of the Royal Artillery, Royal Engineers, Royal

4 Information regarding the curriculum of the cadet colleges in England is given from time to time in Training Memoranda issued by the War Office

16 Individual study

1 It is the duty of senior officers, with their greater knowledge and wider experience, to encourage and guide their juniors in their individual studies. They must first and foremost assist them in the interpretation of the principles enunciated in Field Service Regulations, and show them how to study military history and the regulations in the light of these interpretations, so that they may learn to apply the principles instinctively in solving any problem with which they may be faced

2 Though much can be done by senior officers to train their

and the War Office, co-operation is

individuality of the officer, vary in each case

knowledge of historical events is of little value. The size of modern armies and their improved armament and means of communication render many lessons of the past inapplicable to the present. But human nature and the underlying principles of war do not change and it is for this reason that valuable lessons can be learned from even the most ancient campaigns.

military history

4 One of the best methods of studying any operation is to find out from books what the situation was believed to be by a commander at any given time, then to take the map and work out in detail a solution to the problem.

By this means the incomplete information and conflicting considerations on which commanders have to act in war may be realized.

By such study an officer can make the nearest approach to actual war experience.

6 Senior officers can do much to assist their juniors by holding periodical discussions for the exchange of views on the lessons to be learnt from the campaign selected for general study.

18 Lectures

1 Lectures are a useful means of instruction if they stimulate interest and lead to a study of the subject with which they deal, care must be taken to ensure that lectures are carefully prepared and well delivered and that the number given is not excessive.

Lectures on regimental history are of particular value in ensuring that all ranks are conversant with the past achievements of the regiment to which they have the honour to

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belong, and have a just appreciation of the traditions which it is their privilege to maintain.

2. It is essential that a lecturer should have a thorough knowledge of his subject in order that he may not only deliver his prepared lecture with confidence, but that he may also be able to elucidate any point bearing on the subject which a questioner may raise. The subject-matter of the lecture should be arranged in logical sequence, facts, arguments, and deductions leading up to certain definite lessons derived therefrom. It is usually inadvisable to attempt to impress more than three or four definite points in one lecture. A few points thoroughly explained and illustrated will have a much more lasting effect on the minds of the hearers than a larger number inadequately emphasized by arguments and examples.

3. To hold attention it is necessary that a lecturer should look at and speak to his audience. He should, therefore, endeavor to lecture from notes only, and not read his lecture. It may often be necessary to write out a lecture in full, but before delivery it should be condensed to a few headings and notes; the process of writing and condensation will help to memorize the essential points.

In delivering a lecture other essentials are to speak naturally, albeit slowly and distinctly, to speak with earnestness and fervent enthusiasm, and to keep within the allotted time, which should seldom exceed three-quarters of an hour.

Further, should a lecturer while speaking find that he has underestimated the time required to deliver his lecture, it is infinitely better that he should omit long, and even important passages, rather than rush with a view to completing within the period at his disposal all that he had intended to say.

Humour in a lecture, provided it is relevant, is a valuable means of relieving periods that require concentrated attention on the part of an audience; it may be used with advantage to impress a point, but must be spontaneous.

4. The principle of training by the eye must not be neglected when lecturing. Points of importance worked out on a blackboard, and reference to wall maps, plans, and diagrams are means to this end. Lantern slides can also be used effectively to show situation maps, views of theatres of operations, photographs of leading personalities in any campaign under review, etc. In this connection, it is important to ensure that wall maps, etc., are sufficiently well

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3 To get full value from the reading of past campaigns it is necessary to examine carefully how principles have been applied by commanders and with what results. A thorough knowledge of the principles contained in Field Service Regulations is, therefore, an essential preliminary to the study of military history.

4 One of the best methods of studying a campaign is to read the account of it in a general history, and then to read the account of it in a special history, and then to read the account of it in a special history, and then to read the account of it in a special history.

5 A study of the campaign of 1914-1918, for example, will show that the principles of war are the same as they were in the campaigns of the Middle Ages, and that the principles of war are the same as they were in the campaigns of the Middle Ages.

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20. Conferences on training

1. During the individual training period conferences of senior officers should be held to discuss the individual and collective training of the past season and to consider that of the coming season. At these conferences the points brought to notice in the Memoranda on Training (*see* Sec. 11) should be carefully noted.

2. Commanders of formations and units should also hold conferences of their immediate subordinates periodically throughout the year, for the purpose of receiving verbal reports as regards training, to enable difficulties to be brought to light, and to ensure the dissemination of sound ideas.

3. Agenda should be prepared for all conferences and issued some time beforehand in order that those detailed to attend may come prepared to discuss the subjects for consideration.

During the discussion, control by the officer in charge of the conference is essential to its success.

21. Essays and military writing

1. It is important that all officers should learn to express themselves well on paper. Whether it be the drafting of orders and memoranda or the framing of reports, writing, in some form or other, forms part of the daily life of every officer.

To improve their powers of expression on paper, to develop concise thought and crystallization of ideas, and to encourage the study of subjects of military interest, officers should be encouraged to write essays during the individual training period.

2. In writing an essay :—

- i. A clear understanding of the subject and of what is required is essential.
- ii. The subjects should be divided into suitable headings, and these headings should be sub-divided into paragraphs arranged in proper order. Headings, and the general purport of each paragraph, should be noted concisely clear of the text.
- iii. Arguments, dealt with in logical sequence, should be balanced against each other and pushed to a conclusion. A mere narrative of events or a reiteration of the remarks of previous critics is

of little value independent thought must be brought to bear and definite deductions drawn

- iv The style should be concise and clear All irrelevant matter and exaggeration should be avoided
- v All quotations should appear in inverted commas and exact references should be given

22 Appreciations

1 An appreciation is a military review of the situation based on all available information culminating in a statement of the measures recommended to meet it

2 A distinction must be drawn between (i) appreciations in connection with subjects elaborated in peace time such as plans of campaign and (ii) appreciations of strategical or tactical problems in the field which in the case of minor tactical problems may not be committed to paper In the former rapidity in compilation is immaterial every known or surmised factor however slightly it may bear on the situation must be considered and recorded since future developments may materially alter its importance In the latter rapidity is generally all important and the time available will seldom admit of all the factors being recorded though they should all receive consideration

3 The value of method is very apparent in war where there are so many disturbing influences and where rapidity is often of the utmost importance Constant practice in appreciating strategical and tactical situations is therefore essential The habit of making appreciations teaches an officer to arrange his facts methodically and trains him to arrive rapidly at a logical and sound conclusion

4 Whether appreciations are written or delivered verbally it is of advantage to follow a logical sequence of ideas as this enables the argument to be formulated and grasped more rapidly

The accepted sequence is —

- i The object
- ii Considerations which affect the attainment of this object
- iii Courses open to the two sides
- iv The plan

This sequence is applicable to almost all strategical and tactical situations.

An opening statement of the situation and in some cases arguments, may be necessary, but the object must always be clearly stated in a separate paragraph.

From the plan in the final paragraph the staff must be able to take appropriate action and write the necessary orders.

5. The heading (if the appreciation be written) should give the title of the appreciation and state from whose point of view it is being made. The place where, and the time and date at which the situation is being appreciated, should also be included.

6. The object should be clearly and concisely given and should be kept in view throughout the appreciation. It is important not to confuse "object" with "objective." The object can often be stated at the outset, but the selection of the objective, or objectives, to attain that object may only be possible as a result of an appreciation of the situation.

7. Among the factors which might influence the attainment of the object the following may be mentioned: the position, relative strength, armament, efficiency and morale of the opposing forces, including probable reinforcements and the *relative resources in men, money, and material* of the belligerents, the political situation, topographical and climatic conditions, time and space (an essential consideration in practically every military appreciation), vulnerable points, character of the opposing commander, communications, supply, and transport. It should, however, be remembered that information regarding these and kindred matters is not of itself of great value. It is the deductions and inferences to be derived from such information that are chiefly needed.

In the case of proposed movements by sea, rail, or mechanical transport, sufficient detail should be given to show that they are within the capacity of the means of transport available and that the necessary arrangements have been worked out.

Though the above and other factors may have to be considered, nothing should be written down that is not essential to the solution of the particular problem under consideration and that has not a definite bearing on it.

8. The arguments for and against each course open to either side should be briefly discussed, and their practicability

proved if necessary. A distinction should be drawn between established facts and assumptions since on the accuracy of the latter the soundness of the arguments is largely dependent.

It is usually better to consider the courses open to one's own side before dealing with those open to the enemy. To reverse this procedure tends towards a surrender of the initiative. When however the initiative obviously rests with the enemy it may be advisable to consider his probable action first.

It is important to visualize the situation from the enemy's point of view and in deciding upon his probable action to credit him with acting wisely unless he has shown in the past that he is likely to act otherwise.

The discussion should lead logically to the plan proposed.

9 The plan of action should be definite, clear and practical. It should be stated concisely but in sufficient detail for a trained staff officer to be able to draft the orders required to carry it out. It should where necessary be illustrated on a map or by means of a diagram in order that its salient points may be grasped more quickly.

The more simple the plan the greater chance there is of its successful execution giving greater rapidity it usually allows the initiative to be seized. The soundness of every plan will depend upon the correct application of the principles of war as enunciated in Field Service Regulations.

10 The foregoing paragraphs have dealt with the framing of appreciations for strictly military purposes. Occasions will also demand appreciations for submission to a Cabinet committee, a Minister or other non military personage. Such documents should be framed in a readable and narrative form and should avoid technical military style and casuistry. The factors and considerations which would concern and convince the recipient should be fully dealt with. The expense of a full military review of the situation which will be unnecessary to develop in such papers. They must conclude with the recommendation of a definite line of action.

23. Reconnaissance

The object of practising reconnaissance is to render staff and non-commissioned officers capable of performing their duty in war.

2. A reconnaissance should be carried out in accordance with the instructions contained in Field Service Regulations, Vol. II, and should be executed in connection with the solution of a definite tactical or administrative problem.

3. It is advisable that junior officers and non-commissioned officers should be taken on to the ground and shown, step by step, how to carry out a reconnaissance, and how to make a report, as a preliminary to being ordered to execute a reconnaissance without assistance.

4. It is important that officers should also receive instruction in the issue of clear and definite orders for reconnaissance. An effective reconnaissance is almost impossible of execution without definite instructions as to what is actually required.

24. Promotion examinations

The aim of promotion examinations is to ensure that all officers maintain the necessary standard of professional knowledge.

Officers should pass their successive promotion examinations early, so that they may be qualified for higher rank in case of a local or national emergency. Further, if qualification is delayed until near promotion, contingencies of service may interfere and prevent attendance at one or more examinations. On the other hand, an officer should not enter for a promotion examination before he is adequately prepared, since failure is discouraging and cannot redound to his credit.

The regulations governing promotion examinations are contained in King's Regulations, 1928, paras. 850-871, and Appendix X.

A memorandum on the preparation of officers for promotion examinations is given in Appendix I.

25. Training of senior officers

1. As an officer rises in rank, so do the demands on his capacity increase. Breadth of view, power of decision, character, and professional knowledge, necessary qualifications for senior rank, will not be gained by chance: their acquisition will be the result of an officer's individual study and effort, and of a system of training which apprehends the essential characteristics of higher leadership and does all that is possible to produce them.

2 It is an important duty of higher commanders to ensure that systematic training is undertaken of formation commanders and their staffs of unit commanders and of senior regimental officers under their command

3 Opportunities of command and staff work in the field become less frequent in the senior ranks Full use should be made of two-sided exercises both with and without troops to afford practice in leadership and higher staff work Conferences or discussions on larger questions of military policy tactics organization administration armament and training are of value

4 Although a commanding officer is responsible for the training of his officers it is legitimate and useful to organize during the individual training season under brigade or divisional arrangements short courses for senior regimental officers in specific subjects

5 Methods should be sought wherever possible of giving officers experience outside their units so as to broaden their views and stimulate their interest in a wider field of affairs.

CHAPTER III

INDIVIDUAL TRAINING—EXERCISES WITHOUT TROOPS

26. General Instructions

OBJECT OF EXERCISES WITHOUT TROOPS

1. Commanders and staff officers of all grades need systematic training in the application of the principles of war to concrete problems. Chances of such practice with troops occur relatively seldom during training, particularly so far as unit and formation commanders are concerned. The necessary practice must therefore be sought in exercises without troops; such exercises also provide the means of studying particular problems of staff work and administration.

VARIOUS TYPES OF EXERCISE

2. Exercises may range from a platoon T.E.W.T.* to a strategic exercise concerned with armies.

The object and scope of the exercise, the weather, and the accessibility of suitable ground will be among the factors determining whether better instruction will be provided by an indoor or outdoor exercise or by a combination of both.

Exercises may be divided into two categories, "one-sided" exercises and "two-sided" exercises (war games).

3. In a "one-sided" exercise the directing staff determines the action of the enemy and controls the exercise by the issue of a succession of "situations." Since the detailed action of the enemy and the locality for each "situation" can be predetermined, such exercises are particularly suitable for tactical exercises on the ground or sand model.

4. In a war game, on the other hand, opposing commanders are allotted their roles, and the exercise proceeds largely according to the plans and orders of each side. War games are more realistic, and provide good practice in command while also affording valuable instruction to subordinate commanders and staffs. They will usually be worked out on a map indoors, and are not suitable for dealing with minor tactics.

* Tactical exercises without troops.

of inhabitants, capacity of railways, availability of local labour, supplies and transport, sites of aerodromes, water supply, etc. It may be convenient to show frontiers, important towns, existing railways, etc., by means of an outline map issued with the general idea. In a simple tactical exercise, on the other hand, the opening narrative need only consist of a few lines, giving the position of the unit under consideration and the précis of an order from superior authority: such an order will automatically include information of the enemy, information of our own troops and the task to be undertaken.

8. Any orders or instructions contained in opening narratives or special ideas, or subsequently issued by the director during an exercise from an imaginary superior authority, should be carefully framed and should be correct in every detail, in view of their instructional value.

9. In all exercises the problems set should admit of more than one reasonable solution; thereby those under instruction will be forced to weigh the merits of alternative solutions and to make a decision.

10. When deciding the scope of an exercise, and when allotting duties to those under instruction, consideration should be given to the prior importance of training officers and N.C.Os. in the duties of appointments they are likely to hold in war. Consistent with the above, opportunity should also be taken to train leaders and staffs in the duties of the next higher rank.

11. Except in the most elementary exercises, the effect of air operations on strategical, tactical, and administrative questions should receive due consideration.

12. Administrative problems should be studied as they arise naturally in the course of an exercise. At certain stages of an exercise administrative factors may be decisive, and as such should receive full attention at the expense of tactics.

CONDUCT OF AN EXERCISE

13. The more closely the proceedings of an exercise are made to resemble war conditions, the greater will be their value. Clear-cut problems do not present themselves in war; uncertain factors, sources of friction, and diversions usually complicate the issue. Information given to belligerents

should be couched in the forms in which it would come hand in war

14 Exercises without troops afford officers frequent opportunities of making up their minds quickly and of giving out verbal orders this is a most important part of training. While in certain situations good value may be gained by allowing time for discussion in syndicates in other situations both when making plans and when issuing orders officers should be restricted to the time that would be available on service

15 In commenting on solutions to any problem the director should condemn definitely any infringement of principles but should allow latitude in their application. The directing staff solution to a problem will have been carefully thought out but it will seldom be the only good solution

COMPOSITION AND DUTIES OF THE DIRECTING STAFF

16 The size of the directing staff will depend on the scope of the exercise. For example at a company T L W T for the instruction of platoon commanders the company commander would act as director without assistance. For a battalion T L W T dealing with a small force of all arms for the instruction of company and platoon commanders the directing staff might consist of the battalion commander as director with the adjutant an artillery officer and an engineer officer to help him.

At more comprehensive exercises the director will need a staff representative of all arms of the service and of all branches of the staff to assist him in controlling the exercise and in criticizing the work of syndicates. At a "two-sided" exercise the directing staff will need to be further elaborated by the addition of a control staff and umpires (see Sec 28, 16)

17 Care and forethought must be given to the organization and duties of the directing staff if an exercise is to run smoothly. It will be advisable particularly in the case of a two-sided exercise to give the directing staff some rehearsal of their duties prior to the exercise. At one-sided exercises when the handling of syndicates is to be decentralized to several members of the directing staff a situation must be thoroughly discussed by the director and his directing staff prior to the exercise. In addition to a timetable for the exercise governing the

work of those under instruction, it will be of help in larger exercises to issue a Drawing Staff Time Table laying down the times and places for drawing staff conferences and the work to be undertaken by the drawing staff during the exercise.

ADMINISTRATIVE ARRANGEMENTS

18. The officer forming an exercise should satisfy himself that the expenses involved are justified. Government accommodation and transport should be used when available and suited to the requirements of the exercise.

19. Where exercises are to extend over two or more days it will be necessary to arrange accommodation whether in barracks, hotels, or camps. As far as possible, all officers of one squadron should be accommodated together. If officers representing opposing forces are in the same locality they should be in different hotels or camps.

20. In the administrative instructions to be issued to all officers, information may be required on the following matters:—

- i. The hour and date of assembly.
- ii. Accommodation.
- iii. Transport.
- iv. Cloak.
- v. Sanitary.
- vi. Dress.
- vii. Travelling orders.
- viii. The mode of dispersal.

27. One-sided exercises within troops

VARIOUS TYPES OF ONE-SIDED EXERCISES

1. The following are the more common types of one-sided exercises:—

- i. One day outdoor exercise (para 2 below).
- ii. Outdoor exercise extending over two or three days; work and conferences in rooms or quarters (para 7, below).
- iii. Outdoor skeleton force exercise (para 8 below).
- iv. Indoor exercise. Exercises of types i., ii., and iii. above, may be adapted to provide indoor exercises.

on the map or sand model when weather or other conditions preclude outdoor work

At such exercises order writing message writing and the co-ordination of duties at a headquarters may be usefully practised

✓ Sand model exercise (para 15 below)

PREPARATION AND CONDUCT OF A ONE DAY OUTDOOR T E W T (See also Sec 26, 5 17)

2 Having decided on the object and scope of the exercise and having chosen a suitable area to bring out the required lessons an outline of the scheme should then be drawn up from the map the object of the exercise and the lessons which it is desired to emphasize being constantly kept in view. When this has been done the ground selected should be visited all necessary alterations made in the outline scheme and detail filled in. From the work thus done on the ground the scheme can be completed indoors and detailed solutions to the problem prepared. A second visit to the ground is advisable to ensure that the finished scheme is in every way satisfactory. The aim should be to create by means of narratives a series of situations each of which will compel those under instruction to appreciate the ground and other relevant factors and make a decision

3 The scheme will consist of an Opening Narrative leading up to the first problem. It is advisable that the first problem should be issued for solution prior to the day of the exercise and that it be capable of solution without reference to the ground. By this means a thorough knowledge of the scheme is ensured before work on the ground begins. The exercise will be continued by a succession of narratives each leading up to a fresh problem. To every problem various solutions are likely to be submitted by the syndicates. In order to ensure uniformity the development of the exercise successive narratives should be based on the directing staff solution of the previous problem

4 Sufficient copies of the scheme and of all narratives and problems should be made to enable copies to be given to each

5 In exercises dealing with the several arms of the service

and the air force, it is necessary that officers of all arms of the service and the air force should, when possible, be associated in them.

Officers under instruction may each represent the commander of the force dealt with in the exercise, and may for convenience work in syndicates of from two to four. Alternatively syndicates may be formed, each comprising a commander, his staff, and the commanders of supporting arms working with him. Syndicates have the advantage of reducing the amount of work to be dealt with by the directing staff, and give those under instruction the opportunity for discussion and the exchange of ideas and experiences when considering the different aspects of a problem. Where the composition of syndicates suits such a course each officer in turn should act as mouthpiece of the group, and be responsible for the distribution of the work among the other members, and for the decisions made. When officers of all arms are not available an officer of the unit should be told off in the group to represent each other arm, and, in addition to his other duties, to consider specially the action of the arm he represents.

5. The value of the instruction given while on the ground will mainly depend upon the extent to which the ground itself is actually used. Officers must be taught to study the ground in preference to their maps and to make full use of their field glasses in doing so. In this connection, while problems should usually be set at the same positions on the ground as those concerned would occupy in similar situations in war, the solutions should be discussed and criticized at points where there is ample standing room for those present, and from which a good view of the ground can be obtained. These points require careful selection on the ground when the scheme is being drawn up. Care should also be taken to ensure that no problem is set on the ground which could be solved equally well on a map indoors.

6. The following will be a suitable procedure at one of these exercises—

i. As a preliminary to the issue of the first outdoor problem, the director will discuss the work done on the problem issued with the opening narrative (para. 3, above).

On reaching the ground he will issue the first outdoor problem and will ensure that those under

Instruction visualize the situation depicted in narrative

He will state the time allowed for the solution and the point at which solutions will be discussed. At the end of the time allowed the director will in turn the solution of each syndicate. Vague or indefinite solutions should be condemned. Answers should usually be given in the form of verbal or written order or message.

Where the situation allows it is good practice make a commander or officer acting as such giving out verbal orders to other members of a syndicate acting as subordinates. In this way a sound system of issuing verbal orders can be taught in which the following points should receive attention -

- (a) Whenever possible a view of the ground in question should be obtained and reference made to it in preference to the map. The manner of referring to the ground must depend on the situation. For example when within view of the enemy methods will be needed to ensure concealment.
- (b) The standard of verbal orders as regards material and method of issue can be judged by the extent to which they are grasped by subordinates in the syndicate.

Having heard the solutions of syndicates the director will make his comments and explain his own solution to the problem.

The director will then give out the next narrative and direct syndicates to the spot selected for the next problem and so on.

At the end of the day's work the director should hold a short conference to stress the chief lessons of the exercise.

PREPARATION AND CONDUCT OF A ONE SIDED OUTDOOR EXERCISE EXTENDING OVER TWO OR THREE DAYS

7. Exercises of this type are carried out on the same lines as day outdoor exercises (para 2 above) but work is done, conferences are held each evening. All syndicates act the same headquarters through out the exercise, operations

are not continuous, but are regulated by a series of situations issued by the directing staff.

Such exercises are particularly suited for brigade or similar formation exercises, in which the commander can practise his unit commanders and their headquarters, can accustom them to his method of command and orders, and can impress lessons in elementary co-operation with the other arms. In a three-day exercise it is possible to deal comprehensively with situations envisaging attack, defence, and protection.

An example of a time table for a typical exercise of this nature is given in Appendix II.

PREPARATION AND CONDUCT OF A ONE-SIDED OUTDOOR SKELETON FORCE EXERCISE

8. Exercises of this kind differ from those previously considered in this section in that the various headquarters of the force concerned are located on the ground as dictated by the progress of events. The provision of intercommunication is an essential feature.

The headquarters of actual formations or units may take part as such, or the headquarters in the exercise may be represented by syndicates of selected officers. Intercommunication should, whenever possible, be provided by signal units in the normal manner. If sufficient signals are not available, extemporized methods of intercommunication, such as the use of the civil telephone system, may be usefully employed.

9. Skeleton force exercises may be used with advantage for command, divisional and brigade exercises, and for artillery exercises. They are particularly valuable for the practice of staff work, co-operation and procedure; and are therefore suitable for counter-battery, air, signal, and similar exercises.

10. The opening narrative, issued a few days before the start of the exercise, will give the general situation and the superior order on which formations or units are acting. Instructions will be necessary as to the hour of start of the exercise and the initial location of headquarters.

11. The general outline of operations will have been predetermined by the director with a view to teaching the desired lessons. Control may be exercised by him through

the orders he may issue purporting to come from superior authority, and by his regulation of enemy action. Except in the case of exercises in which tactics are of major importance, it will usually be possible for the directing staff to prepare a complete narrative of enemy action to cover the period of the exercise.

With the aid of this narrative umpires who should be attached to the headquarters of formations and units, will be able to issue to their headquarters in the most suitable form and at appropriate times information concerning the enemy and the action of forward troops resulting from the orders issued.

In exercises in which tactics are of major importance, the action of the enemy may depend to a large extent on the operations of our own troops. In this case it will be advisable for a senior officer of the directing staff to command the imaginary enemy and to work out his distribution and plans throughout the exercise. Other officers of the directing staff should be provided, as necessary, to assist him in making the detailed enemy dispositions and to convey information concerning the enemy to the umpires at the various headquarters.

The enemy commander should be located where he can best control his assistants and also keep in touch with the director.

12. It is possible at exercises of this kind to practise the employment of air forces including the co-operation between corps and divisional headquarters and army co-operation squadrons.

The air forces and intelligence liaison organization concerned should, if possible, be fully represented and aircraft should carry out reconnaissances, photography, and flights for offensive action as ordered.

The enemy should preferably be represented by ground strips which may be used to convey any particular meanings required by the exercise, but if this cannot be arranged, pilots should be interviewed by umpires acting as picture painters, before and after proceeding on their tasks, to enable them to transmit the necessary messages when in the air and to convey the required picture of the situation to the intelligence liaison sections when interviewed. Picture painters controlled by the directing staff will also give the air situation and the results of air fighting. In this way the working of air force formation and squadron

headquarters, including the intelligence liaison section, and of the general staff of the headquarters, staffs of artillery headquarters, and the means of intercommunication can be realistically practised.

13. It will be necessary to consider the question of accommodation and food of the various headquarters throughout the exercise, whether in billets, inns, or tents.

A suitable scale of motors and horses, not exceeding war establishments, will be needed by all headquarters to carry out the moves necessitated by the course of operations, and to meet the requirements of reconnaissance and liaison.

14. An example of a time table of a typical divisional exercise of this kind is given in Appendix III.

SAND MODEL EXERCISES

15. Although a sand model can never replace ground for the purposes of training, it is of great value for elementary tactical training. It can be used anywhere, in all weathers, by day or by night. It has the great advantage that the ground, as represented by the sand, can be made to fit the scheme.

It is a mistake, therefore, to make an elaborate model of a particular piece of ground and to work on this day after day.

16. The same principles apply to the preparation and conduct of a scheme on the sand model as to a scheme carried out on the ground. These are enumerated in Secs. 26 and paras. 2-6, above.

17. The simplest form of sand table is a rectangular wooden tray with edges 4 in. or 5 in. high, which is placed on any available table. A tray 5 ft. by 6 ft. fits on to two barrack-room tables placed side by side, and is a convenient size. The tray is filled with 3 in. of sand and arranged so that it will represent a piece of ground suitable for the scheme decided on and the lessons which it is intended to bring out. It will be found that the sand if slightly damped is easier to model than if it is very dry.

A certain amount of realistic detail is necessary to stimulate the imagination of the students, and can be easily applied to the sand model, e.g., evergreen twigs for woods and trees, tapes for roads, model houses, etc., made approximately to

scale Over elaboration is unnecessary and product tendency to retain the same model for a number of exercises on account of the labour and time spent on its preparation

18 Any scale suitable for the particular scheme can be selected but all students from the outset must be clear regards this scale e.g. it should be pointed out that from this house to that road the distance is 300 yards etc. On this wood to that road the distance is 400 yards etc. The vertical scale of the scale of inches cut on the sides of the sand table will assist quick appreciation of distances represented by the particular scale selected, i.e. One foot represents 100 yards. On inch represents 15 yards etc. The vertical scale of the model must be exaggerated in comparison with the horizontal scale. It is unnecessary to work to any actual scale of heights.

19 Having made the sand model to represent ground suitable for the scheme some tokens will be required to represent troops. Individual soldiers rifle sections light automatic sections and commanders can be represented by matches with different coloured heads or halma men. In company schemes draughts or dominoes can be used to represent platoons in close formation.

20 Students who are unable to grasp the idea of ground portrayed on a sand model should place their eyes level with the edge of the sand table when the model will appear much more realistic.

21 For elementary instruction simple and definite situations should be created and definite answers demanded from the student for example he should be told to place each man of his section on the sand model as he would expect him to be at a certain moment and to show with his fingers on the model the route by which his section would advance—or to place each man of his section in the fire position he would recommend etc.

22 In addition to elementary tactical instruction the sand model can be used for many other purposes e.g. —
 i for hill warfare exercises
 ii for exemplifying battle drill formations
 iii for teaching reconnaissance and occupation of positions by artillery or machine guns,
 iv to illustrate a defensive system,

- v. to demonstrate intercommunication or maintenance;
- vi. for discussions subsequent to outdoor operations, the sand model representing the ground in question;
- vii. for instruction in map reading.

ELEMENTARY TACTICAL EXERCISES WITHOUT TROOPS FOR TRAINING WITHIN UNITS

23. In the preceding paragraphs the preparation and conduct of "one-sided" exercises has been considered in general terms: in the remaining paragraphs of this section the application of such exercises to elementary training in units is considered.

24. Elementary tactical exercises for sub-unit commanders may be carried out on a sand model or on the ground.

The object of such exercises should be to give junior officers and non-commissioned officers a thorough grounding in tactics as applied to the handling of the sub-units of the arm of the service to which they belong, prior to any detailed consideration of the co-operation of other arms of the service and the Royal Air Force on the battlefield.

While the remarks that follow are framed with reference to junior commanders of cavalry, infantry, and Royal Tank Corps, they are also applicable to the junior leaders of supporting arms, who must learn the elements of cavalry, infantry, and Royal Tank Corps tactics as a basis for instruction in the tactics of their own arm.

25. Each scheme should deal with the tactics of a sub-unit (squadron, troop, company, platoon, etc.) in one or other of the principal tactical operations of war—attack, defence, or protection.

26. Each scheme should aim, firstly, at giving a clear conception to those under instruction of the normal distribution of the sub-unit concerned in the tactical operation with which it deals. To attain this end the names, position, and tasks of the various portions of the sub-unit should be brought out and normal frontages and depth, as indicated in the manuals, should be given.

The second aim should be to illustrate and inculcate the principles which should guide the sub-unit commander concerned in the tactical handling of his command. This end can best be attained by teaching those under instruction

to approach each problem systematically giving full weight to the following requirements —

- i A clear understanding of orders given and of the objects to be attained
- ii A grasp of all the information available regarding the enemy the ground and the location of the troops who are to carry out the operation and how this information can be amplified by reconnaissance in the time available
- iii A consideration of alternative plans from a study of the ground and the map having regard to what the enemy is doing and what he is likely to do how the action of other bodies of friendly troops will affect the situation and how the ground can be used to the best advantage
- iv The selection of the plan considered for definite reasons best calculated to attain the object in view i.e. the selection of a plan which is simple and calculated to achieve surprise which does not involve the breaking up of the organization of units or sub units which does not look too far ahead and which makes the best possible use of the ground
- v The communication of the selected plan to subordinate commanders if possible in view of the ground in the form of short concise orders in which a definite task is allotted to each sub-unit

27 It is particularly important in elementary tactical exercises that junior officers and non-commissioned officers should be taught to appreciate the importance of ground this can best be done by showing them what to look for in each operation e.g. in attack defence and rearguard actions They should be shown that the ground should be studied in order to find —

- In the attack—*
- (a) covered approaches so that it may be possible to get close to the enemy unseen
 - (b) positions from which covering fire to assist the attack can be brought to bear
 - (c) features the occupation or capture of which will enfilade the enemy's position and enable a flank attack to be made in favourable circumstances

ii. *In defence—*

- (a) facilities for observation, so that the enemy cannot approach unseen ;
- (b) positions difficult for the enemy to locate from the ground or the air ;
- (c) covered approaches in rear of the positions, which will facilitate counter-attack and supply.

iii. *In rearguard action—*

- (a) positions from which long and medium range fire can be brought to bear on any enemy approaching ;
- (b) covered lines of retirement, so that retreat can be carried out unseen.

28. The considerations mentioned in paras. 2-6, above, govern the preparation and conduct of an elementary tactical exercise.

The scheme itself should be quite simple and the opening narrative (Sec. 26, 7) may be issued verbally or in writing. The problems, based on the opening situation and subsequent narratives, should usually be set in the form of orders issued by the unit commander. By this means of setting problems those under instruction will learn to grasp quickly the purport of operation orders and the form which such orders should take.

29. Before and after each exercise, those under instruction should be encouraged to study the paragraphs of Field Service Regulations, Vol. II, and the manual of their arm of the service that relate to the tactical operation with which the exercise in question deals. In this way they will learn to appreciate how the principles contained in the regulations should be applied to a concrete problem.

30. To avoid a multiplication of schemes and ensure that the tactical training within a unit is conducted upon uniformly sound lines, it is advisable that a commanding officer, or an officer deputed by him, should first carry out an elementary tactical exercise for officers, and that, when they have mastered thoroughly all the lessons involved, the officers should in turn carry out the same exercise for their non-commissioned officers on a subsequent day.

28. Two-sided exercises without troops (war game)

- 1 Among the objects of a war game may be the following —
- i To afford practice to the commander of each side in independent command and in pitting his brain against those of an enemy leader
 - ii To practise commanders and staffs in framing and executing strategic plans
 - iii To give practice in situations where opposing forces are, initially, widely separated and where the full use of all means of reconnoissance is needed together with the sifting of information coming to hand from all sources.
 - iv To practise commanders and staffs in manoeuvre to join or refuse battle
 - v To study specific problems of strategy or administration.

SCOPE OF A WAR GAME

2. While war games are particularly suitable for exercises dealing with large formations they may also be usefully employed to practice brigade and unit commanders in the independent command of a small force of all arms

3. The simplest form of war game will deal with two opposing syndicates, each representing a commander and his staff. More comprehensive exercises may include on each side a commander and his headquarters and also syndicates representing the headquarters of subordinate formations. For example, each side might comprise a corps headquarters with corps troops and headquarters of divisions or a divisional headquarters with divisional troops and headquarters of infantry and artillery brigades. It will seldom be found possible to extend the scope of an exercise to include a third echelon of command, orders reach very late, and it is difficult for the director to afford time to deal with its problems.

Although a war game will usually be carried out indoors, it sometimes be possible and advisable to include in the exercise reconnoissance of ground such reconnoissance would be relevant to the situation obtaining at the time

PREPARATION OF A WAR GAME (*see also* Sec. 26, 5-12)

5. In framing the general and special ideas for a war game the following points should be noticed:—

- i. Since the primary object of a war game is to practice opposing commanders in leadership, each side should be given an independent mission. Orders from superior authority should allow latitude in the execution of allotted tasks. If "special ideas" are framed in which commanders of sides are given specific and detailed orders, much of the value of an exercise will be lost.
- ii. The special ideas should place opposing forces three or more marches apart; thus more scope will be given for an initial appreciation, and at least one subsequent situation can be framed before close contact between the forces eventuates.
- iii. It is possible to give additional practice in command by dividing a side into parts which are widely separated at the beginning of the exercise: thus each detachment commander as well as the force commander will have scope for command.

CONDUCT OF A WAR GAME (*see also* Sec. 26, 13-15)

6. A war game will start by the issue, some days before syndicates assemble, of the General Idea, and of Special Ideas calling for an appreciation and initial orders from each side.

In larger strategic exercises it may be advisable to issue by post one or more subsequent situations requiring further orders from each side.

By this means the period can be covered from the start of hostilities up to the moment when opposing forces are approaching contact, the situation developing according to the plans of opposing commanders and the information which will have of each other's movements.

7. When syndicates are assembled the exercise may be continued in one of two ways:—

- i. As a "continuous exercise."
- ii. As a "broken period exercise."

8. A "continuous exercise" will involve the schemes corresponding with real time. Thus a two days' exercise will deal with two days' progress of events in the scheme.

operation when necessary so as to produce good instruction. (*See para 13, above*)

It will be the duty of the control section to instil realism into the situations. Umpires will be responsible for supplying to syndicates information which would come to hand as the result of the orders and action of each side, but beyond this the control staff must develop items of intelligence (e.g., identifications, prisoners and documents) unforeseen events affecting administrative services and installations, the incidence of casualties, sources of friction, failures in intercommunication, effects of weather, shortage of water, congestion of communications, etc., consistent with the course of operations.

In their tasks the control section will work in close touch with the Chief Umpire and the Umpire Staff, and will assist to ensure that the interplay between umpires of opposing sides is satisfactory.

ii. Umpire section.—

Umpires will be organized on the basis of the following principles:—
 (a) Umpires will be organized on the basis of the following principles:
 (b) Umpires will be organized on the basis of the following principles:
 (c) Umpires will be organized on the basis of the following principles:
 (d) Umpires will be organized on the basis of the following principles:
 (e) Umpires will be organized on the basis of the following principles:
 (f) Umpires will be organized on the basis of the following principles:
 (g) Umpires will be organized on the basis of the following principles:
 (h) Umpires will be organized on the basis of the following principles:
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 (j) Umpires will be organized on the basis of the following principles:
 (k) Umpires will be organized on the basis of the following principles:
 (l) Umpires will be organized on the basis of the following principles:
 (m) Umpires will be organized on the basis of the following principles:
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 (o) Umpires will be organized on the basis of the following principles:
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 (q) Umpires will be organized on the basis of the following principles:
 (r) Umpires will be organized on the basis of the following principles:
 (s) Umpires will be organized on the basis of the following principles:
 (t) Umpires will be organized on the basis of the following principles:
 (u) Umpires will be organized on the basis of the following principles:
 (v) Umpires will be organized on the basis of the following principles:
 (w) Umpires will be organized on the basis of the following principles:
 (x) Umpires will be organized on the basis of the following principles:
 (y) Umpires will be organized on the basis of the following principles:
 (z) Umpires will be organized on the basis of the following principles:

iii. Criticism section.—The criticism section will examine all messages, orders, and instructions issued by syndicates

The salient points will be collated for the consideration of the director, while minor points will be dealt with by the umpire staff.

criticism should be noted on the work of syndicates and returned to them.

- iv. **Narrative section.**—At an exercise of some scope a concise narrative of events is of value, both for immediate use by the directing staff, and for reference subsequent to the exercise. It would seldom be necessary to have more than a chief narrative officer with two assistants.

CONFERENCES ON WAR GAMES

17. It may prove advisable for the director to hold a conference each evening of the war game in order to avoid congesting the final conference. Care must be taken, however, to confine such conferences to general subjects, or to points in the operations which are already known to both sides; otherwise a realistic fog of war may be dispersed.

18. A final conference will be held at which the director will shortly outline the tasks allotted to commanders, their appreciations and the main features of resulting operations. He will then comment on the operations, confining his remarks to the emphasis of the more important lessons.

At latter exercises the final conference may be usefully divided into three parts, i.e., the director's remarks—remarks on administrative questions—and remarks by the officers of the directing staff concerned on special points affecting the R.A.F. and the various arms and services.

29. Special exercises without troops

ADMINISTRATIVE EXERCISES

I. Administrative problems will be studied as they arise naturally in the course of exercises without troops. By this means the influence of administrative questions on strategy and tactics will attain correct proportions.

It will be necessary, however, in commands and formations to hold special exercises with the object of studying administration in greater detail than is possible at an exercise framed for strategical or tactical instruction.

Such exercises may be designed to work out the administrative side of a previous strategic or tactical exercise, or as special exercises to study specific problems with staff and administrative services. They will be framed and conducted on similar lines to exercises dealt with in preceding sections.

SIGNAL EXERCISES

2 Signal exercises have as their object the training of staffs and signals in the details of co-operation and in methods of economizing time and effort

They are usually conducted as outdoor TFWTs of the type portrayed in Sec 27, 6-14 and last for one day.

Organized supervision is necessary to follow and comment on the detailed working and procedure of signals and of the office staffs at the various headquarters concerned.

There is no objection to making such exercises of tactical interest, provided that their chief object—staff and signal training—is not obscured.

Air Co-operation Exercises

3 Special exercises to make military commanders and staffs familiar with the working of army co-operation squadrons and with the principles governing the issue of orders and instructions to R A I units are of value. They may be worked out on the lines indicated in Sec 27. 12

BATTLEFIELD TOURS

4 Battlefield tours form a valuable means of training. They may be held for any of the following objects —

- i To study on the ground a particular operation with a view to considering the reasons for its success or failure
- ii To consider the army to a
- iii. To afford of ac of some of the conditions of a modern battle

5 It will not usually be advisable to combine the instruction of both junior and senior officers in a single tour

6 A battlefield tour should invariably be preceded by a general study of the campaign in question and a detailed study of the particular tactical operations which are to be investigated. The study on the ground should rarely be purely historical but—and especially in the case of tours attended by junior officers—should involve consideration of the application of modern arms equipment and tactical methods to the situation as it existed. For this r

preferable to restrict the tour to the study of operations of a limited period.

7. The success of a battlefield tour will depend in great measure on the following factors:—

- i. an accurate and detailed knowledge on the part of the conducting officer of the events and conditions of the operations, together with the faculty on the part of this officer and his assistants of being able to present a vivid picture of the situations considered; and
- ii. a well-planned itinerary and good administrative arrangements.

A detailed preliminary reconnaissance is essential.

8. Permission to hold a battlefield tour in a foreign country must be obtained from the War Office in the case of commands at home. Applications should be forwarded three months before the beginning of the tour and should give the following details:—

- i. The name of the officer in charge.
- ii. The number of the party.
- iii. The ports abroad of disembarkation and embarkation, with dates.
- iv. The area to be visited.
- v. The towns in which the party will stay, and the dates.

Parties should proceed in plain clothes and be in possession of passports.

UMPIRE EXERCISES

9. The object of an umpire exercise is to impress on the umpires of a formation the principles and methods of umpiring.

Such exercises will usually be directed by the senior umpire of the formation concerned, assisted by the formation staff. They should be held as a preliminary to the collective training season. A two-sided exercise should be taken, preferably one that has been carried out with troops during the previous training season: it should be worked through situation by situation on the map or on the ground. Thus problems can be set dealing with the organization of the umpire staff, the action of senior and subordinate umpires in specific situations, and the methods of intercommunication within the umpire service.

30 Demonstrations

Types of Demonstrations

1 Demonstrations are of two kinds informative and instructional. Informative demonstrations are used to show patterns of armament vehicles equipment etc and their working to demonstrate some tactical or administrative conception or to illustrate a new organization. Instructional demonstrations are used for elementary technical or tactical instruction. Thus the informative demonstration corresponds to a lecture while the instructional demonstration constitutes class teaching.

Informative Demonstrations

2 It is feasible to deal with a considerable number of spectators at an informative demonstration the following points will need consideration —

- i Selection of suitable ground for the demonstration and a suitable viewpoint for the spectators
- ii Provision of a time table and programme and an explanation and running commentary on the demonstration either by megaphone or loud speaker
- iii Arrangements for organizing spectators into groups with instructors if a detailed inspection of exhibits is involved
- iv Adequate training and rehearsal of those taking part in the demonstration
- v Administrative arrangements car parks etc

Instructional Demonstrations

Much of the elementary tactical and technical instruction in squadrons, batteries and companies and their component parts should be given by explanation and demonstration combined with practice in execution.

In the preparation and conduct of instructional demonstrations the following points should be considered where the selection is concerned —

- i The selection of ground to illustrate the tactical points involved and to provide a suitable viewpoint for those under instruction

- ii. The organization of those under instruction into a number of groups each under an instructor.
- iii. The previous coaching of instructors as to the points to be stressed and methods of conducting the demonstration.

5. A usual method of conducting an instructional demonstration in minor tactics is as follows:—

A portion of the unit or sub-unit is ordered to carry out the operation which is the subject of instruction, the remainder being told to observe and being subsequently asked for criticisms.

The instructor, or where several groups are formed the instructor in charge of each group, should ask onlookers what is being done well or badly, and then explain what ought to be done and why.

As soon as the first party has finished, a second group should carry out the operation in the light of the lessons they have just learned, while the first party and the remainder observe and criticize them, and so on.

It should be realized that, in any system of training teaching by demonstration is only a first step to practical execution. An instructional demonstration without subsequent practice by the audience has little value.

CHAPTER IV

COLLECTIVE TRAINING

31 General Instructions

OBJECT OF COLLECTIVE TRAINING

1 To achieve success in war an army must be well led, it must also be able to move rapidly to strike effectively and resist stubbornly.

The object of collective training is to afford leaders opportunities of exercising command in the field under warlike conditions, to train units and formations and to develop mutual confidence and co-operation between them. Although under peace conditions the stress and strain of war can never be fully portrayed field operations with troops afford a wholesome check on theoretical training and give valuable experience as regards the limits of human endurance, the incidence of friction and the factors of time and space.

ORGANIZATION OF TRAINING

2 Collective training must be progressive starting with the training of the smallest sub-unit and continuing with the training of the successively larger sub-units, units and formations.

When funds are restricted or time limited the most advanced training is that which must first be sacrificed. The object of the training of each sub-unit, unit or formation is to fit it to take its place in the next higher formation. The training of individuals and units is not however to be considered as limited to any particular period, advantage must be taken of any opportunities which may arise for individual training during the period of collective training whilst the training of sub-units may sometimes be arranged to take place in the individual training period.

In order that the best use may be made of the time, day, and ground available it is necessary that every commander for the collective training of his command should draw up a carefully pre arranged programme in which due attention should be given to the various items of training according to their importance.

8 It is most important that all commanders (in addition to training their troops, should themselves obtain practice in the art of command)

During collective training, both in units and formations, the superior commander will if possible, set and conduct one or more schemes, in order—

- i. to give the junior commander an opportunity of practising command of his formation, unit, or sub-unit,
- ii. to enable the superior commander to judge if the training of the lower formation unit, or sub unit is being carried out on the lines he desires.

As an example of this principle during company training the battalion commander should set and direct schemes for each company, similarly during battalion training the brigade commander should, if possible, set and direct one or more schemes for each of his battalions.

Such schemes may be one-sided or two-sided exercises

Further opportunities of practice in command will occur during higher training. For example, during battalion training there will be a proportion of two-sided exercises where one part of the battalion will fight the rest, thus giving two regimental officers practice in more extensive command. Similarly during brigade training there will be two-sided exercises when battalion commanders will command each side. The command of a side, more particularly if the scheme is framed to allow latitude to commanders in executing some independent mission, makes high demands on an officer's powers of leadership, and affords valuable practice in the art of command. On the other hand, to command a formation or unit forming part of a larger force affords limited instruction.

9 An officer commanding a sub-unit, unit, or formation should never attempt to command and at the same time to direct operations. If he wishes to direct he must relinquish command.

4. In planning about collective training the organization of units must be kept intact to the extent that it is necessary to maintain the strength of any sub-unit in their identity but when the strength of any sub-unit is low that required for it to act effectively as such it may be temporarily combined with another similar sub-unit.

It will often be advisable during collective training of available men and animals machines thus, training in the expense of unit

It will often be advisable during collective training to record a shortage of available men animals machines or form it as a pooling of resources thus, training information training at another the expense of units

When it is not possible for the various arms officers to be attached to units, a liaison officer would be able to express on his side the probable disposition to what extent might minimize its effect.

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company fight the rest, will provide good instruction. (See Sec. 39, 2)

Note — While the following paragraph refers particularly to conditions obtaining in the United Kingdom, the principles involved are applicable, with slight modifications, to foreign stations.

6. In order to encourage initiative, resourcefulness, and the sense of responsibility in officers, and to give them an

practice camp.

exercised.

arms.

Preparations must be commenced a considerable time beforehand in order that the programmes of training, the schemes for each day, and all administrative arrangements

* In order to prevent giving undue trouble to neighbouring proprietors it may be better that the arrangements for obtaining the use of ground near large garrisons should be made by higher commanders, and not by each company, etc., commander separately.

may be thoroughly thought out, and may be approved by the regiment or battalion commander before the date fixed for the exercise.

The following is an outline of the conditions under which these exercises should be carried out:—

- i. All administrative arrangements will be made by the officer commanding squadron, battery, or company concerned. These will include arrangements with landowners and tenants for the use of ground over which to manoeuvre, if not made by a higher commander (*see footnote*), reconnaissance of the ground, arrangements for billeting, hire of camping or bivouac grounds, rations, water, sanitation, and transport, etc., where not arranged for by higher authority.
- ii. Manoeuvring ground should not be hired, but a guarantee given to the effect that any damage done to gates, hedges, walls, fences, ditches, etc., will be made good by the troops if the circumstances permit or a just and fair sum allowed to the owner as compensation.
- iii. A model agreement for the hire of billets or land for camping should be issued to commanders for their guidance.
- iv. The allowance of transport, equipment, tools, etc., to be taken will need to be decided.
- v. Such ordnance stores as are required will be drawn from the R.A.O.C.
- vi. A sum of money from the training grant will be allotted to the officer commanding squadron, battery, or company, to cover the cost of hire of camping ground, water supply, compensation for disturbance or damage, etc.

When an allotment is made, instructions will be issued as to the restrictions which the general officer commanding may desire, within the powers entrusted to him by financial regulations, to be placed upon any class of expenditure likely to be incurred.

A statement of account including all claims, and supported by vouchers for each item, must be rendered to the command paymaster as soon as possible after the conclusion of training.

33 Regimental, artillery brigade and battalion training

2 The instructions as to training laid down in part 4 of the preceding section are equally applicable to a battalion, etc during the very early stages of its training

3 Towards the conclusion of unit training commanders of formations should whenever possible make arrangements for the association of the various arms in certain exercises and demonstrations

4 The system laid down for companies in Sec 32 6 should be extended to regiments artillery brigades and battalions when funds time and ground are available On such occasions opportunity may be taken to bring the regimental transport up to war establishment

34 Cavalry and infantry brigade and divisional artillery training

1 Arrangements for the training of cavalry brigades will be made by general officers commanding-in-chief

Divisional commanders subject to the approval of the
the duration
ry brigades and

work should be progressive.

2 A period will be allotted during which the divisional

During the divisional artillery period stress will be laid on the following —

- 1 Predicted shooting and all forms of brigade control
To obtain full value from this it will be necessary to provide technical umpires whose duty it w

6 Flgs are usually the most suitable means of meeting the requirements of para 1, sub-para: i and iii above. Skeleton units thus formed will require some provision for command and intercommunication.

7 A skeleton force must occupy the same extent of ground and move at the same speed as the force it represents. It should not be concentrated but should march at full intervals, or unreslihy must result.

ed exercises is liable to cause loss of
ops

Object of an exercise

exercise it is necessary for the director
has to the lessons to be taught. In a
will be able to choose his battle ground
of operations to suit his object. In
while it will not be possible to foresee
of operations, it will be possible by
to opposing commanders, and the
troops in the scheme, to bring about the
tions on a selected area.

h in one-sided and two-sided exercises, bring the main tactical lessons to be mine and name to his directing staff a number of subsidiary points to be exercise

Figure 1

Age Group	1990	1995	2000	2005
18-24	15	14	13	10
25-34	12	13	14	15
35-44	10	11	11	12
45-54	8	9	9	10
55-64	6	7	7	8
65+	4	5	5	6

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CHAPTER V

EXERCISES WITH TROOPS

39. Various types of exercises

1. The nature of exercises to be undertaken during collective training will depend on the need for progressive instruction (Sec. 31, 2) and on other factors which will vary in different parts of the Empire.

The War Office, or the responsible military authority, will give directions from time to time as to the objective of higher training (Sec. 1, 2). Local problems of defence, and of duties in aid of civil power, may require special consideration in framing training programmes.

At all stages of training exercises should be designed to get full value out of the particular type of training ground available within reach of a station. Variety, realism, and a warlike atmosphere in schemes will hold the interest of the troops and provide good instruction.

2. Exercises with troops may be divided into one-sided exercises and two-sided exercises. In one-sided exercises the enemy will consist of a skeleton and will be controlled by the director. In two-sided exercises both sides will consist of troops, and the commanders of each side will have freedom in the execution of their tasks.

The proportion of one-sided exercises and two-sided exercises to be included in a training programme is dependent on the following considerations:—

At each stage of collective training, from platoon to divisional training, it will be necessary to hold certain exercises to teach elementary lessons of tactics, control, and co-operation. For such lessons one-sided exercises will be preferable, since the director can pre-determine situations both as regards ground and opposing forces, by controlling the skeleton enemy.

In sub-unit training, where much elementary instruction is needed, the majority of exercises should be one-sided.

In unit training a proportion of one-sided exercises will be needed, while in formation training the majority of exercises should be two-sided, with attendant advantages of practice in command and realism.

A surfeit of one-sided exercises is liable to cause loss of interest among the troops

40. Object of an exercise

the initial tasks given to opposing commanders, and the initial distribution of troops in the scheme, to bring about the required type of operations on a selected area

2 The director, both in one sided and two-sided exercises, in addition to considering the main tactical lessons to be stressed, should determine and name to his directing staff and umpires a certain number of subsidiary points to be watched throughout the exercise.

41. Scope of an exercise

A proportion of exercises should extend over a period of 24 hours, or more, so as to practise the realistic development of operations, night work, and the action of the administrative services

in the scheme only at that period

The calling of an armistice during operations can seldom

be justified: it is difficult to notify its start and end to outlying troops, the fog of war is dispersed, and the realistic practice of administration is affected.

42. Preparation of an exercise with troops

1. Generally speaking, the same considerations govern the framing of a scheme with troops as those mentioned in Sec. 26, 5-12.

For both one-sided and two-sided exercises with troops, the scheme will start with the issue of a general idea and a special idea for each side.

General and special ideas should be as simple as possible.

2. Special ideas should be issued in sufficient time to enable the situation to be explained to all ranks before operations begin. Since it is necessary that the information concerning *one side should not be disclosed to the other*, all special ideas will be marked "Exercise Secret" and issued in a single envelope similarly marked. All administrative orders and other papers which might disclose information will be treated in the same manner. In this way, while sufficient secrecy will be ensured, it will not be necessary to treat such papers as secret documents and to carry out the full instructions contained in King's Regulations, 1928, paras. 1576-1583, for their security.

3. When the special idea takes the form of an order or message from a superior, or the report of a conversation with a superior, which in war would be known to the commander of the force alone, it should be issued only to the commander of the side and to the umpires. It is the duty of the commander to circulate the whole or part of such information, according to his discretion, to those under him.

In the special idea for each side an arbitrary line, visible on the ground, should be laid down beyond which no troops of that side may move before a certain hour. Thus a "no man's land" between the two forces is ensured at the start of the exercise and there will be room for patrols and advanced troops to operate over a more or less extensive area before gaining contact with the enemy.

4. It will usually be necessary to publish unit or formation orders dealing with such questions as dress and equipment, distinguishing marks, transport to be taken, supply arrangements, boundaries, and instructions concerning digging.

43. Area of operations

In undeveloped countries the freedom of manœuvre of troops is often hampered by lack of roads, or lack of crossings over obstacles, rivers, *nalas*, etc. It is an important duty of the director to select areas for higher training where liberty of manœuvres is obtainable, otherwise manœuvres may prove dull and uninteresting. By the erection of temporary bridges over waterways, and the construction of crossings over obstacles, the manœuvring possibilities of an area may be much improved.

44. Direction of one-sided exercises with troops

A one-sided exercise is framed in order to teach certain definite and elementary lessons. The skeleton enemy will be under the more or less rigid control of the director. Usually the commander of the "full strength" side will, in his special idea, receive orders to attack, to defend, or to act as advanced guard, etc., as the case may be: he will thus have limited initiative.

In spite, however, of these restrictions, which are adopted for instructional purposes, the exercise should be kept as realistic as possible both as regards direction and umpiring. Umpiring should be carried out exactly as for a two-sided exercise; the plans, strength, and distribution of the skeleton enemy should be taken into consideration whenever the merits of a tactical encounter are being assessed.

The number of umpires to work with a skeleton force should approximate to that required for a full strength force of similar size.

The principles developed in Sec. 45, governing the direction of a two-sided exercise with troops, are to a large extent applicable to the direction of a one-sided exercise.

45. Direction of a two-sided exercise with troops

THE DIRECTOR'S OBJECT

1. The object of the director will be to frame and conduct the exercise so that it develops in a warlike manner, and provides good instruction.

The director will exercise such control as he may consider necessary :—

- i. by the issue of orders or instructions emanating from an imaginary higher authority;
- ii. by narratives or new special ideas giving information regarding imaginary operations on the flanks or elsewhere, or by the issue of intelligence calculated so as to affect the strategical or tactical situation as to bring about the required change in the course of the operations;
- iii. by the introduction of real or skeleton reinforcements. To make these reinforcements available at the right time and place requires nice judgment and considerable forethought.

4. Soon after the general and special ideas have been issued, the director should get into touch with commanders of sides so as to discover the general nature of their plans: if it is disclosed that these plans will not bring about a useful course of operations, the director must take immediate action to adjust matters by one of the methods of control above mentioned.

5. When a "stalemate" seems likely to occur, or operations are taking an undesired course, the director will use one of the means named in paragraph 3, above, to adjust matters. In no case should he give orders to his umpire staff to check forward troops or influence commanders in an arbitrary manner. For example, if it is desirable, from the director's point of view, that attacking troops should not progress further than a certain line by nightfall, it would be wrong for him to order his umpires to effect this irrespective of the merits of the situation. Troops and commanders are most sensitive to interference of this nature, since it brings about a situation with which they cannot deal in a practical manner, and interest in the operations is at once lost. In such circumstances the director should influence the attacking commander either by giving him an order from his superior or by bringing some other factor into play, and thus effect the desired check to operations in a realistic manner. If operations reach a stage, even prematurely, where useful instruction has ceased and where it is not possible to instil fresh interest, the director should stop the exercise and send the troops home.

troops

INTRODUCTION OF SOME NEW FACTOR DURING THE COURSE OF OPERATIONS

7 A commander must be tenacious in the execution of his plan, but he must also be prepared to take advantage of a change in the situation.

It is important that commanders should be practised in

the case in war

If the uncontrolled course of operations leads to sufficient variety, it may be unnecessary to adopt the course above mentioned.

ORGANIZATION AND DUTIES OF THE DIRECTING STAFF

8 The task of the director is to frame the scheme and control the operations so as to provide good instruction. He will be assisted by a directing staff normally comprising a control staff and an umpire staff. The distribution of duties between the control staff and the umpire staff is given in Sec 65.

For unit exercises one officer may act as director and chief umpire and a control staff will usually be unnecessary. For brigade and higher training the duties of director and chief umpire should be performed by separate officers.

9 The director will usually assist the chief umpire in assessing the results of the more important actions, since such

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4 As in the case of larger exercises without troops the director's remarks may be followed by remarks on administration and the work of different arms of the service (See Sec 28 18)
It may be desirable after larger manœuvres to circulate the director's remarks in the form of a memorandum

47 Special exercises with troops

1 Administrative exercises —The training of the administrative services will be carried out in accordance with the principles laid down in these regulations so far as the conditions peculiar to each will allow Exercises in which the supply transport medical and ordnance services are tested should be held the combatant troops being represented if necessary by a skeleton force

2 Miscellaneous exercises —In addition to the training mentioned in the preceding paragraphs special exercises and training will be carried out when opportunities arise Such exercises some of which can also be carried out during the individual training period may consist of the following —

- i Combined naval military and air manœuvres exercises such as landings on the open beach or unprotected harbours attack and defence of defended ports including tests of the examination service and the entry of H M warships
- ii Siege exercises
- iii Mobilization exercises such as the mobilization division or of a coast defence command
- iv Technical exercises e.g. engineer exercises

CHAPTER VI

RULES FOR EXERCISES AND MANŒUVRES

48. General rules

1. Rulings given by an umpire are to be regarded as those of the director.

2. The strength of opposing forces is to be estimated by squadrons, batteries, companies, battalions, etc., and not by their actual effectives.

3. Bayonets must not be fixed, or swords drawn, where there are opposing forces.

4. Mounted troops operating on a public road will not move faster than the trot.

5. Firing on a public road will not, as a rule, be permitted, but when a road is unoccupied by the public, with no horses or vehicles near, a single shot may be fired to mark the position.

Owing to the danger of stampeding the horses, no firing will take place in close proximity to led horses nor to camps or bivouacs of mounted troops.

6. Artillery will fire blank on the following occasions :—

- i. On opening fire for the first time from a position.
- ii. To indicate the engagement of a new target.
- iii. To indicate the commencement of a barrage or concentration of fire.

7. If operations are temporarily suspended by the director no military action of any kind, e.g., obtaining information, issuing operation orders, etc., is to be taken by either side during the pause in the manœuvres.

8. When exercises or manœuvres are held on ground, other than Government ground, instructions will be issued to the troops as to the conditions in which tanks may operate and field works be constructed.

49 Distinguishing flags and arm bands

1 Distinguishing flags for lances or motors will be as follows —

Colour of flag	By whom used
i Authorized flag for his appointment (See King's Regulations 1928 para 932A)	Director of army manœuvres
ii Square Dark blue	Director of other manœuvres
iii Red with white upright cross	Commander of a side army
iv Blue with white upright cross	Commander of a side army
v White	Chief umpire
vi Colour as laid down in I S Pocket Book	Commanders of formations

2 The following arm bands 6 in wide will be worn (with the exceptions given in the following table) on the left arm above the elbow —

Colour of arm band	By whom worn
i Blue	Directing staff
ii White with gold badge	Military Manœuvres Com missioners
iii White *	Umpires
iv Red and white	Military and civil compensation officers
v Green	Neutrals
vi Red *	Officers attending manœuvres as spectators and Press correspondents
vii Red with in black.	Press Officer
	Officer charged with duty of giving information to accredited representatives of the Press and to spectators in uniform

* Worn on both arms.

50. Bugle calls

1. During the progress of operations, bugle calls are only to be sounded by order of the director.
2. On the under-mentioned calls sounding, the troops will act as follows:—

- i. Stand fast.—Stop; infantry lie down; mounted troops dismount.
- ii. Go on.—The engagement is resumed.
- iii. Dismiss.—Conclusion of operations.
- iv. Officer's call.—Those officers who have been previously instructed to do so will join the director.

Instructions for manœuvres, or the standing orders of formations, should show what officers are to report to the director on the above-mentioned call being sounded.

51. Employment of aircraft

Units or formations of the Royal Air Force placed at the disposal of military commanders will be employed in accordance with The Employment of Air Forces with the Army in the Field. They will receive all orders for strategical and tactical missions from the military commander at whose disposal they have been placed, but the allotment of aerodromes and the administration of these units will be arranged by the appropriate R.A.F. authority.

ould be carried out by officers of the staff, services, and A.F.

2. During the actual manœuvres, troops will usually bivouac. When the Military Manœuvres Act is in force no previous arrangements need normally be made, for the less the troops depend on pre-arranged camps and bivouac grounds the greater will be their mobility. It will, however, seldom be possible to give such liberty in the selection of bivouacs as to allow of all troops taking the full measures for concealment against hostile aircraft which would be necessary in war.

It will usually be necessary to establish camps for use before and after the actual operations.

If the water supply or other circumstances restrict the number of bivouac grounds, the available sites may be marked on the maps, and a list of such sites, with their description, issued to the staffs. This description should give the name of the owner of the land, the water supply, the accommodation available for men and horses, the rent per acre, and any other useful information. Tracings from the Ordnance map, on a scale of 6 inches to 1 mile, of the camping grounds or bivouac spaces should be issued with the above lists.

Where large bodies of troops are to be kept concentrated, it will usually be necessary to make previous arrangements for water, but where formations bivouac over a considerable area, the existing sources of water supply, e.g., wells, streams, etc., will usually suffice for their needs.

55. Composition of opposing forces and establishments

1. Commanders and staffs must be detailed, and an order of battle issued for each side. Troops should be kept as far as possible in the formations to which they belong.

2. In order that commanders, staffs, and services may be given as much experience as possible of working under service conditions, the number of officers and other ranks allotted in war establishments to each branch of the staff and to each of the various services is in no case to be exceeded. The numbers will usually be restricted to those actually necessary to perform the requisite duties, having regard to the conditions under which the manœuvres are held.

the other hand, it is sometimes advisable to complete staffs up to war establishment in order that the work may be distributed as in war, and that the personnel may learn to work together

3 No personnel, motor cars or other vehicles, cycles or horses, in excess of those allowed in the official establishments are permitted to take part in manoeuvres, nor are private servants (in excess of those authorized), private motor cars, or other private vehicles, allowed to accompany the troops

56. Supply and transport services

Financial considerations will usually entail considerable modification of the active service system of delivery of baggage and supplies

It must, however, be remembered when deciding on the system of supply that the smaller these modifications are the better is the training for those responsible for working the system, and for the administrative personnel involved

57. Ordnance services

As a rule the supply of ammunition, camp equipment, stores, and the repair of vehicles can be carried out by the existing peace organizations working from their normal locations

If however the circumstances require it, the necessary arrangements can be made for the supply of ammunition, camp equipment, stores, and the repair of vehicles to be carried out by the existing peace organizations working from their normal locations

58. Postal and telegraph services

When special postal arrangements are required for troops in the manoeuvre area, they will be made by the Director of Postal Services in accordance with the requirements of the director or command concerned.

59. Civil and military police

1 It is advisable to attach a few civil police to each formation at manoeuvres. Civil police are also required to assist in the control of the civil traffic in the area of operations.

Press representatives will meet them each day, both before and during exercises, at times convenient to them, to discuss the operations of the operations.

2 Where a camp for privileged spectators is established an officer must be detailed to supervise it

61. Miscellaneous arrangements

1. It will be necessary for the branch of the staff concerned to make arrangements for the accommodation of the press and other spectators, and for the distribution of maps and other documents.

2 For convenience of reference, a pamphlet will usually be published by the War Office, embodying the instructions which have been issued on the subjects dealt with in the preceding sections.

62. Provision of maps

1. The maps required for the operations will be provided by the War Office, and will be distributed to the troops in accordance with the instructions issued by the War Office.

2. Nature of requirements of manoeuvre maps must be determined by the War Office, and will be distributed to the troops in accordance with the instructions issued by the War Office.

3 Maps for manoeuvres will, so far as is possible, be provided to troops on the scale and in the form required for war (See Appendix VII)

CHAPTER VIII

UMPIRING

63. General remarks

1. The main difficulty in peace training is to produce the realism of war. To meet this difficulty, as far as is possible, umpires are employed to convey to the troops the effect which would in war be forthcoming as the result of their own and enemy action, with particular reference to effect of fire.

2. The chief task of umpires is, in the absence of bullets and shells, to ensure that the interplay between attack and defence takes its course according to the merits of opposing plans, and their execution.

In the early stages of an operation advanced troops will meet and sub-units will try to make ground with the help of their own fire and mobility. The umpires will here be concerned with the immediate plans of opposing squadrons or companies, and must assess the results of such encounters as a "stalemate," or allow partial or total success to one side or the other.

As an operation progresses, action will become more general, involving the engagement of regiments, battalions, and brigades assisted by supporting arms: plans will be more extensive and orders will take more time to carry into effect. In consideration of the distribution, fire plans, and action of opposing forces, umpires will adjudicate on the progress of the battle.

Thus, umpires will be concerned with a series of combats of varying degree. To assess correctly the progress and results of such encounters and to convey umpire rulings to commanders and troops in a practical and warlike manner is the chief problem of umpiring.

3. In addition to their responsibilities with regard to forward troops, umpires are concerned with notifying enemy action as affecting artillery, reserves, headquarters, administrative services, and the R.A.F.

4. The following sections deal with the organization of methods of umpiring, which are only a means to an end, namely, to introduce the atmosphere of war. Although

of the country whether the best means of conveyance will be a horse or a motor car. A mounted officer will, whenever possible, be provided with a horse-holder. To facilitate intercommunication throughout the umpire organization, umpire meeting places or report centres will be established as required. The position of these report centres at the start of operations, and their proposed moves, must be known to all umpires, who should visit them whenever possible to keep themselves in touch with the general situation.

Umpire information is circulated—

- i. by personal touch between umpires;
- ii. by orderlies (mounted or motor cycle);
- iii. by neutral signal service (when employed).

6. The training of umpires is important. Elementary training in umpiring duties will be undertaken in units, while, as a preliminary to higher training, instruction to umpires will be given by senior umpires of formations.

Umpire exercises (Sec. 29, 9) are a useful means of teaching the principles and methods of umpiring in a practical manner.

65. Respective duties of the control staff and the umpire staff

1. The duties of the director are dealt with in Sec. 45. He will be assisted by a directing staff normally comprising a control staff and an umpire staff.

2. The duties of the control staff are as follows:—

- i. To implement the measures of control which the director may determine, and to inform the umpire staff accordingly. (Sec. 45, 3.)
- ii. To keep the director informed of the progress of operations. This information will be gained through the umpire staff or by the activities of the control staff according to circumstances.
- iii. Under instructions from the director, to watch progress of events at particular headquarters, particular areas, which concern the main lesson of the exercise.
- iv. At larger manoeuvres officers of the adjutant-general and quarter-master-general's staff will be required in connection with maintenance of discipline, control, arrangements for dispersal, etc.

3 The duty of the umpire staff is to adjudicate situations on their merits and to create a warlike atmosphere appropriate to events. It is not the duty of umpires to exercise control over commanders or troops except in so far as they slow down movement by means of casualty, screens or order readjustments after an assault (Sec 70)

If the director for any particular reason requires umpires to assist in doing the work of the control staff he must give specific orders to this effect

4 Both the control staff and the umpire staff will have the duty of watching special points named by the director during the progress of operations (Sec 40, 2)

66. Duties of the chief umpire

1 The chief umpire will exercise general control of the umpires through the senior umpires of each side

all exercises a previous knowledge of the ground is conducive to sound umpire rulings while as a preliminary to a one sided exercise situations which the director intends to bring about may be studied in detail

3 Before the start of an operation the chief umpire will communicate to the senior umpires of each side the following

tions to senior umpires as to how the battle should develop (Sec 69, 7)

. He will keep the director informed as to the course of operations, particularly as to decisions or actions of the combatants which may lead to unexpected developments: he will also notify the director of major umpire rulings as soon as they are decided upon. Similarly, the director will immediately inform the chief umpire of any measures of control which he intends to exercise (Sec. 45, 3).

6. At the end of the operation the chief umpire will usually hold a conference of senior umpires with the object of obtaining :—

- i. A concise narrative of events.
- ii. Details of the particular matters of tactics and procedure watched (Sec. 40, 2).
- iii. Any points of general interest regarding command, tactics, staff work, or administration brought out during the exercise.

The chief umpire will then be ready to confer with the director and assist him in the framing of his conference notes (Sec. 45, 11).

67. Duties of the senior umpire of each side

1. The senior umpire of each side is responsible that the umpires allotted to him are distributed to the best advantage during each phase of the operation.

2. He will hold a preliminary conference with his umpires, shortly before the start of operations, in order to inform them of the points brought to his notice by the chief umpire (Sec. 66, 3), and in order to give them any directions which he may consider necessary.

3. He will be where he can best keep touch with his umpires, the progress of operations, and with the chief umpire. Good facilities of intercommunication are the governing factor.

4. He will ensure that the chief umpire is kept informed of any decisions made by the commander of the side with which he is working, of any umpire rulings of importance, and of the progress of operations.

5. When a tactical crisis of importance is impending he will get into touch with the senior umpire of the opposing side, or the chief umpire, with a view to a ruling being made as to the result of the encounter. He will be prepared to state the distribution and orders of his side.

VIII, Secs. 67 and 68]

ruling as to the development of the battle subsequent to the impending crisis having been made by him or by the umpire he will co-ordinate the action of his forward umpires in conformity and arrange that necessary realism be conveyed to forward troops headquarters and reserves, by fireworks, smoke etc to represent bombardment! He will arrange for conferences with his umpires at least once in every 24 hours preferably in the evening or prior to any decisive phase of the operations. At the end of an operation he will hold a conference so as to be prepared to provide the chief umpire with the data named in Sec 66, 6

7 In Secs 66 and 67 the duties of chief umpire and senior umpire have been discussed with particular reference to larger manœuvres and exercises. In the case of unit operations it will usually be best for the chief umpire also to perform the duties of the senior umpires of sides, and to deal direct with all subordinate umpires

68. Duties of all umpires

1 Umpires have four main duties —

- i To notify commanders with whom they are working of the direction and intensity of enemy fire and of its effect on the progress of the battle also to notify commanders the apparent effect of their own fire on the enemy
- ii To keep their immediate superior informed of the plans and orders of the commander with whom they are working and of any umpire rulings given
- iii To rule what the result of an attack will be, and after the assault to issue orders if necessary, as to action to be taken by each side before hostilities are resumed (See Sec 70)
- iv To pay attention to the special points about which the director has called for information at the end of the exercise (Sec. 40, 2)

2 To carry out these duties successfully demands —

1. Continuous energy in the collection and distribution of information

- ii. Foresight with regard to the probable development of situations and the distribution of umpires to meet them.
- iii. Sound military knowledge and judgment.
- iv. Cultivated military imagination so as to be able to describe in a realistic manner the probable effect of the fire of all the artillery, aircraft, tank, and infantry fire units concerned.
- v. A practical power of expression, so as to be able to convey this picture to the commanders concerned in a few easy and easily intelligible sentences.
- vi. Tact and common sense, so as to gain the confidence of commanders and engender a feeling of mutual understanding between the umpires and the troops.

3. It must be clearly understood that the conduct of the fight lies in the hands of the commanders. An umpire must only describe the situation as clearly and vividly as possible, and leave it to the commander concerned to decide on his course of action.

The only exceptions to this rule are the responsibilities of umpires in slowing down movement by casualty screens (Sec. 71, 2), and their duties in regard to the assault (Sec. 70).

4. Umpires must be careful not to prejudice by their movements surprise action or concealment on the part of the troops: they must also avoid divulging information as to enemy plans or the probable course of operations. Any expression of criticism by umpires during an operation is to be condemned.

5. Information should be supplied to commanders in rear with reference to what they would hear or see in war. For example, where an attack supported by artillery fire is timed to start at a certain hour, the defending commander should be notified by an umpire of the sound of the bombardment, and of the appearance of shell bursts on any portion of the battlefield within view. Care must be taken not to give away information which the recipient could only know by observation or through reports, such as the position of his own forward troops.

6. To facilitate the rendering of reports at the conclusion

of an operation umpires at unit and formation headquarters will always record the following —

- i Orders or information received at their headquarters and time of receipt
- ii The action taken as a result of it
- iii. A précis of orders issued and time of issue
- iv. The time of start of any move
- v Subsequent developments with the times at which they occur

7. Umpires may be required to act as compensation officers in the temporary absence of such officers and they should always report wilful or unnecessary damage

69. Umpire rulings

1 When contact is imminent forward umpires must push well ahead so as to learn the distribution and intentions of

the senior umpire present may be able to give a prompt ruling as soon as it becomes necessary

2 Umpires must take a broad view of the situation and not allow their attention to be absorbed and their judgment unduly influenced by local and minor episodes which come under their personal observation

3 An umpire must always report to the chief umpire through the umpire immediately superior to him any important ruling he has given This report should be brief but

4 In judging the conduct of an attack the following points should be considered —

- i The commander's plan and the extent to which his orders ensure concentration of superior force against the decisive front and co-operation of the various arms and the Royal Air Force, if represented

- ii. The degree of co-operation actually achieved by the various arms in combining fire and movement, and in providing superiority of fire on the decisive front : also that sufficient time was allowed to make this fire effective.
 - iii. The use made of ground.
 - iv. Whether the element of surprise is present or not.
 - v. The condition of the troops, if affected by length of previous march, previous losses, or repulse.
5. In judging the conduct of the defence, the following points should be considered :—
- i. The commander's plan, and the extent to which his orders ensure concentration of fire power for the defence of important localities.
 - ii. The distribution of the defending forces, their depth, and the arrangements made for their concealment from ground and air observation.
 - iii. The field of fire.
 - iv. The co-operation of all arms in the decisive stages of the fight.
 - v. The extent to which the position has been artificially strengthened.
 - vi. The use made of counter-attack.

6. In order that the value of determined resistance may be emphasized, it is important that a commander of an advanced detachment who decides to fight to the last, should be given all possible credit for any delay or loss to the attacking troops which would have resulted from his action. Similarly, in defence, even where the attacker is adjudged successful, elements of the defenders which have escaped the covering fire of the attack should be allowed to exert resistance and cause delay.

7. After the delivery of the assault it is important that the ruling of the umpires should be promptly announced and that effect should be given to it by the troops at once.

With this end in view, and after taking all relevant factors into consideration, the senior umpire on the spot should pre-judge on broad lines the result of an impending assault and notify umpires accordingly.

If, during the assault and the phase immediately following it, attacking commanders mishandle their troops, or the action of supporting arms does not eventuate according to

plan, the extent of success proposed for the attacker can be modified by the umpires

A prompt ruling, which may turn out to be not wholly correct owing to the insufficiency of the information available at the time it is given, is preferable to one which is delayed in order to obtain fuller or more reliable information.

70. Umpire duties in connection with the assault

1 When an assault has been delivered and adjudged successful, the umpires will order the situation to be dealt with in one of the following ways —

i The defending troops in the zone of the assault will be taken prisoner by the attackers and dealt with as in war, after due regard for the provisions of Sec. 69, 6 For purposes of administration it will usually be advisable for prisoners to rejoin their own units

1. *What is the purpose of the study?*
 2. *What are the research questions or hypotheses?*
 3. *What is the study design?*
 4. *What is the sample size and how was it selected?*
 5. *What are the variables being studied?*
 6. *What are the data collection methods?*
 7. *What are the results of the study?*
 8. *What are the conclusions of the study?*
 9. *What are the limitations of the study?*
 10. *What are the implications of the study?*

Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher than the number of incorrect responses in all cases. The number of correct responses was significantly higher than the number of incorrect responses in all cases. The number of correct responses was significantly higher than the number of incorrect responses in all cases.

Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher for the 10 trials condition than for the 5 trials condition. Error bars represent the standard error of the mean.

[illegible]

Prisoners

the defeated troops that have taken part in the actual

ii The defeated troops that have taken part in the actual contest will be ordered to withdraw by the umpires, either behind defending troops adjudged capable of maintaining their position or to a definite locality at such a distance in rear that a new situation can be created and there will be no danger of a running fight ensuing. The successful troops will be allowed to occupy captured positions at once and to continue their operations after such an interval as the umpires may decide.

This method of dealing with the assault is suitable for one-sided exercises, or for two-sided exercises in which small numbers are engaged.

2 The director should decide before the start of an operation which method of dealing with the assault will be employed and will notify umpires and troops accordingly.

71. Fire effect

1 When depicting the effect of fire umpires must ensure that the information reaches all troops affected thereby. The enemy strength in weapons should not be stated specu-

cally, but the nature (e.g., rifle, machine gun, etc.) and intensity of the fire, the direction from which it is coming, and the degree of movement possible must be described.

2. To help commanders to realize the relative effect of their own and the enemy's fire, so that they may take such steps as they consider suitable to the situation, each troop and platoon will carry two blue and two red screens which, when displayed, will have the following significance :—

Screen	For attacking troops	For defending troops
Blue	Under fire of considerable volume. Further advance only possible by fire and movement.	Under fire of considerable volume. Fire power of defence decreased by 50 per cent.
Red	Under fire of such intensity that further movement is impossible.	Under fire of such intensity that fire of defence is silenced.

Screens will be raised only by order of an umpire.

The red screen for attacking troops implies that no movement in front of the red screen is possible for formed bodies. It does not prevent individual men from working forward from the leading section provided the ground is suitable.

If an umpire desires to stop a whole platoon, he should order one red screen to be erected by forward sections and one by reserve or rear sections.

Screens when once raised must remain so until an umpire orders them to be changed or furled.

Screens must be considered only as a rough ocular demonstration of fire effect, details of which must be given verbally by the umpires to commanders (see para. 1, above).

3. Umpires may at the discretion of the director be required to assess casualties in order to inculcate the devolution of command and the constant reorganization which battle demands; also, on occasion, to practise the evacuation of wounded.

In assessing casualties umpires must have due regard to the apparent adequacy, or otherwise, of the measures taken by the body of troops concerned to minimize losses.

In attack, infantry casualties will lie down until the reserves of the side to which they belong have advanced

beyond them. They will then, provided the evacuation of wounded is not being practised, follow in formed bodies by units. In defence, infantry casualties will lie down under cover. Casualties in other arms of the service will be simulated in a manner analogous to the above, the particular nature of each arm being taken into consideration.

72. Duties of regimental officers of all arms as regards co-operation with umpires

Rulings given by umpires must be at once accepted without discussion.

1. An umpire must not say to the leading troops, "put up your red (or blue) screens," and then gallop away. The correct action is to order the screens to be put up and then explain the reason.

2. An umpire must not tell troops that they are held up by the enemy.

3. An umpire must not tell a body of troops that they have been shelled off a hill.

The correct action is to tell them the number of casualties which are being inflicted and leave them to take whatever action they think fit.

4. An umpire must not stop a reserve battalion and tell it that it is not to be used.

73. Practical examples of umpiring

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the umpire should inform him of the sound of rifle and machine-gun fire, so as to convey to him indications of the action of forward troops which he would have in war.

5. An umpire must not tell a brigade commander that the enemy has withdrawn: the commander must find this out from his forward troops, or observers.

6. An umpire must not tell a brigade commander that two of his battalions have suffered heavy casualties and will require time to reorganize.

The correct action is to notify these battalions the casualties which they are considered to have suffered in action: the battalion commanders will then inform the brigade commander of what has happened and of the length of time which they will require to reorganize if this is necessary.

74. Special points with regard to umpiring with cavalry

1. In operations in which cavalry are concerned, situations develop very rapidly. The umpires will probably lose control unless they ascertain well beforehand the dispositions of the defending side and themselves accompany the foremost troops of the attackers.

2. When shock action is employed, the result is usually decisive one way or the other, the defeated force suffering severely in casualties and loss of morale. The umpires, therefore, in deciding on the result of such encounters, must so arrange that the victorious combatant shall reap the full advantage of his success.

3. Umpires must not allow patrols to reconnoitre and obtain and transmit information in a manner which it would be clearly impossible to adopt in war. The commander of a patrol that has transgressed in this respect should be told that information improperly obtained must not be communicated. This applies equally to reconnaissance by staff and other officers; it must be remembered that it would be but seldom that a motor car or motor cycle would be used for reconnaissance in a hostile country, outside the protection of forward troops.

4. In umpiring for advanced points and patrols care must be taken by umpires to take up positions which, while enabling them to give rulings at the right moment, will not give a hint of the dispositions of the enemy.

75. Special points with regard to umpiring with artillery

1. Umpires have two separate duties to carry out in connection with the action of artillery. They are responsible for keeping commanders informed of the nature, intensity, and effect of the artillery fire to which the troops may, from time to time, be subjected, and for indicating the location and intensity of hostile barrages and the position of heavily shelled areas.

conclusion of operations

It is the duty of the senior artillery umpire with a formation to inform his umpires when they are to concentrate on the technical side and when on the tactical. It will seldom be possible to deal adequately with both at the same time.

2. When the artillery fire in accordance with a pre-arranged time table, or carry out organized harassing fire, there will usually be time for a summary of artillery orders or messages to be sent through report centres to the umpires of the opposing side, who will then indicate the intensity and effect of the fire to the troops concerned at the proper time.

3. In other circumstances it is seldom practicable for the artillery umpire with the battery in action to proceed to the

fore, that these umpires should be informed as early as possible of the general layout of the hostile artillery and particularly of the areas in which their observation posts are situated. They will then be in a position to know when the troops with whom they are umpiring are visible to hostile artillery observation and may be expected to come under shell fire, and they will be able to paint the picture accordingly.

Whether the umpire describes the action actually taken by the hostile artillery, or the action he assumes that they are taking, does not affect the training of the troops concerned. Any reasonable assumption is preferable to a disregard of

artillery fire. When an assumption of this sort is made and communicated to the troops, it should also be communicated as soon as convenient to the neighbouring umpires so that there may be uniformity of information.

4. Technical umpiring within the unit will require at least one umpire for each battery and one for each brigade. Their duties will be to see that the various technical calculations are made *correctly* and in time, and that guns are in fact engaging targets that have been allotted to them. This is particularly important with anti-aircraft units. An umpire with an anti-aircraft battery should note carefully the time between the recognition of the target and the opening of fire, also the number of rounds fired whilst the aeroplane is flying on a steady course within the arc of fire. (Sec. 79, 9.)

This technical umpiring is very important from the artillery point of view; if it is well done, artillery units will obtain valuable technical, as well as tactical instruction, and plans for artillery support will be kept practical and simple.

Artillery brigade umpires are responsible for passing to report centres such technical information as the umpires with the opposing side require to know (*see* para. 3, above) in order to enable them to carry out their duties satisfactorily.

5. In addition to the blank ammunition fired by the guns, umpires can indicate artillery fire by smoke candles. When the artillery are firing on a pre-arranged plan, it may be necessary for an umpire to call upon the nearest available troops to help him put down the smoke candles.

6. Target cards, A.F. A 2472, form a valuable check on artillery fire. These should be kept by all battery commanders or forward observing officers and forwarded at two-hourly intervals to brigade headquarters, where they will be collected by the brigade umpires.

7. In order to prevent manœuvres from conveying false lessons, umpires must always keep in mind the important question of ammunition supply. They should estimate, from the orders given by battery commanders, the expenditure of ammunition and ascertain from battery commanders the steps which would be taken to replenish the supply.

If an umpire considers that a battery would have run out of ammunition, he should inform the battery commander, who will cease fire until he has obtained further supplies, or until, in the opinion of the umpire, further supplies would have arrived in war.

76. Umpiring duties as regards works of construction and destruction

1 In cases where works of construction or destruction

have been made out, that the men required have had the necessary tools and materials issued to them and have been on the site of their work for sufficient time to complete their tasks, and that all other arrangements for the work have been made that manœuvre conditions permit

2 If in the course of an umpire's work the umpire

3 A house, village, enclosure etc., notified by an umpire as being prepared for defence, will be considered to be occupied if its garrison be formed up in, behind or near it.

4 Where manœuvres are

77. Special points with regard to umpiring with armoured fighting vehicles

1 Owing to the rapidity with which armoured fighting

in the subsequent operations until sufficient time has expired to justify an assumption that they have been repaired or replaced. The number of reserve tanks available on the line of communication and the time taken to carry out replacements should be indicated if necessary in the special idea of the exercise. It will seldom be possible however to replace casualties during the course of an exercise.

6 In addition to the umpires with tank units an experienced artillery and infantry officer should be appointed to each tank battalion to assist in umpiring a division of tanks against artillery and anti tank weapons (if other arms).

The tank battalion umpire should be provided with light cars. As soon as the plan of attack and the fire plan supporting it are known they should go forward as quickly as possible to the area likely to be affected. The umpires with the defending units will indicate the arrangements for the defence and the tank battalion umpire with his knowledge of the plan will indicate the probable line of a flank and the tactics likely to be adopted by the attacking tanks.

Keeping the various alternatives in mind the umpires will then estimate the number of tanks to be made casualties during the assault. As the attack develops the umpires will single out tanks to be stopped when they come within a decisive range of the anti tank weapon by means of flags waved by umpires or by mounted horse-holders. This makes it necessary for the umpires with defending units and their horse-holders to be suitably mounted.

After the tanks have passed over the position the senior umpire on the spot will collect reports from the umpires of all units of the defence and in conjunction with the tank umpire will make any necessary adjustment to the number of tank casualties already made and will assess the casualties of the defence.

7 In the event of an unforeseen tank action such as a tank counter attack against advancing infantry or a sudden clash between small numbers of tanks the umpires of all arms concerned must come to a quick decision amongst themselves, the tanks being halted until casualties have been recorded.

78. Special points with regard to umpiring in defence against gas

1. The possible use of war gases by an enemy may be represented in peace training either by certain harmless substitutes or, so far as mustard gas is concerned, by marking areas said to be contaminated by it.

2. The substitutes at present in use are as follows :—

i. A non-persistent tear gas to represent non-persistent gases.

ii. Pyridine to represent mustard gas.

Where gas substitutes are to be used on a large scale it will be advisable to employ special gas umpires.

3. Where marking is resorted to, the method of contamination and the time at which it was completed should be made known to the first troops to encounter the area. It will be the duty of the umpires to ensure that the areas or localities marked could, in fact, have been contaminated under war conditions in the time and with the means available.

4. Gas substitutes (including the marking of areas) are not to be used indiscriminately by troops or umpires. They will be employed either as part of a commander's plan, or under the orders of the director to bring out a definite tactical lesson.

The fact that the effect of mustard gas is delayed should not be overlooked.

5. In assessing gas casualties, umpires should take the following points into consideration :—

i. Troops who fail to wear a respirator in the area of an effective concentration of non-persistent gas should be placed out of action at once.

ii. Troops exposed to the action of mustard gas should be placed out of action four hours later, if they :—

(a) do not wear respirators immediately gas is detected ;

(b) remain exposed to the action of mustard vapour on, or within 100 yards of, the contaminated area ;

come into contact with grass, etc., contaminated with liquid mustard.

Animals which come into contact with vegetation long grass forage or water containing it with liquid mustard gas should be killed with it at a distance of four hours later

6 To judge the effectiveness of gas the following points will be considered

- i The organization of troops after gas attacks
- ii The nature and extent of exposure of troops to gas
- iii The influence of weather on the action of the gas
- iv The delayed action of gas
- v The effect on the troops of prolonged wearing of gas masks

79. Special points with regard to army being with aircraft

1 Umpiring of air attacks will be determined by the speed at which an aircraft is moving, allowing to the difficulty of seeing the aircraft and of judging accurately the position of troops

2 It is not possible to see the position of troops with the naked eye, this will depend upon weather conditions and the importance attached to obtaining information

3 Air umpires will form part of the staff of the chief air umpire who will also act as the chief of the chief of the air situation. They will work in close liaison with army umpires. They are responsible for the accuracy of air attack against troops (see para 5 and 6 below) and also for transmitting information to the chief air umpire to enforce the awards. A committee will be appointed to assist the chief air umpire in the award of medals and decorations. Air umpires in order to prevent cumulative awards

4 The chief air umpire will require both wireless and spatch riders for communication with aerodromes and air bases and if possible with the signal service should be attached to him in a liaison capacity

R.A.F. units should always report to the chief air umpire when a patrol is being sent out: this report should show time of departure, number of aircraft, task allotted, and approximate direction of patrol.

5. Casualties will be awarded by the following methods:—

- i. Impounding reports or photographs recently brought in.
- ii. Delaying the departure of aircraft for a period.
- iii. Placing out of action R/T tenders or W/T stations for a period.
- iv. Placing a proportion of aircraft out of action for the remainder of the day.

Careless flying in the face of strong hostile A.A. defence, or flying unnecessarily low, will be severely penalized.

6. Aeroplanes attacking troops or transport with machine-gun fire will, if possible, use machine guns fitted with muzzle attachments and fire blank ammunition. Umpires investigating the effect of these attacks must take into consideration the fact that in war bombs also would probably be dropped.

7. Aeroplanes, other than those making diving attacks, which are employed in bombing troops and transport, will indicate their action by firing light signals. In estimating the results of the attack the following factors will be taken into consideration:—

- i. Number of aircraft employed.
- ii. Number, weight, and type of bombs dropped.
- iii. Height from which the attack is made.

8. Army and air umpires will co-operate in deciding the effect of air attack and anti-aircraft small-arm fire, and will base their decision on the following considerations:—

- i. Strength of the attack and the tactics and vulnerability of attacking aircraft.
- ii. The formation of the troops attacked.
- iii. Degree of readiness of the troops to meet the attack with fire.

The air umpire will decide on the probable accuracy of the attack, and the army umpire on that of the anti-aircraft fire. Casualties to the troops will then be awarded by the army umpire, and those to aircraft by the air umpire. When there is no air umpire on the spot immediate action must be taken by the army umpires concerned.

9 Decisions with regard to the effect of anti aircraft artillery fire will be based on the following procedure. Every round fired at an aircraft pursuing a straight course at constant height between 3 000 and 10 000 feet for sufficiently long to enable correctly aimed fire to be brought on to it will be considered potentially effective provided the correct procedure is observed at the gun before the round is fired.

Army umpires will as far as possible keep a record of such rounds and this record will be handed to the air umpire in the area concerned. The air umpire after consultation with the army umpire will award the casualties the number of which will be based partly on his own observation of the flying which has been carried out within range of the guns and partly on the number of potentially effective rounds which have been fired.

It has not been found possible to devise an efficient method of indicating to pilots the fact that guns are actually firing. For this reason pilots should be informed beforehand of the general area in which hostile anti aircraft batteries are located.

APPENDIX I

PREPARATION OF OFFICERS FOR
PROMOTION EXAMINATIONS

1. **General.**—The syllabus for the examination of officers for promotion is laid down in King's Regulations, 1928, Appendix X.

The commanding officer of a unit is responsible that officers under his command are prepared for examination for promotion (King's Regulations, 1928, para. 78) ; this preparation must therefore be organized.

Whether the necessary instruction is carried out by the commanding officer himself, by his company, etc., commanders, or by selected officers who have special knowledge of certain subjects, is a matter for arrangement, but a definite system of instruction should be organized within each unit, and definite hours allotted to this instruction in programmes of training.

In order further to assist officers in this respect, it is necessary to ensure that the officers' mess library is kept in an accessible place, and that the periodical grant is spent on the purchase of suitable books ; and that all letters and circulars on training matters have the widest possible circulation.

The reports on the " examination of officers for promotion," issued after each examination, are a valuable aid to officers preparing themselves for their examination ; they are obtainable at officers' reference libraries, or on payment from H.M. Stationery Office, or through any bookseller. They contain the question papers, together with either suggested solutions or remarks on the way in which the questions should be approached.

Officers preparing themselves for examination will usually derive considerable assistance from answering the papers within the time allowed, and by comparing their answers with the solutions suggested in the report.

2. Although it is the duty of commanding officers of units to ensure that the preparation of officers for promotion is carried out by means of organized training, the responsibility rests primarily on officers themselves to ensure that they

6. **Military history.**—The books recommended for study for the campaigns laid down for the examinations are notified in Army Orders. The method recommended for the study of military history is described in Sec. 17.

7. **Tactics.**—The instruction of officers in their duties in the field by means of exercises, both with and without troops, is one of the most important duties of a commanding officer.

A knowledge of the organization, capabilities, limitations, and methods of other arms is essential. (*See* Sec. 5.)

Special attention should be paid to the instruction of officers in the rapid appreciation of a situation, in the writing of operation orders and in the issue of verbal orders.

8. **Essay.**—Notes on essay writing are given in Sec. 21.

9. The use of the **Field Service Pocket Book** is permitted at all practical examinations, but not for answering oral questions; it may also be used in sub-heads *b* (iv) and *d* (iv) only of the written examinations. Officers should therefore make themselves generally conversant with its contents, so that they can turn up quickly any information they may require from it.

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6th May, Morning	Progress of events resulting from orders of previous evening.
Afternoon	Unexpected turn in events. Development of tactical situation.

7th May, Morning	Progress of operations.
1100 hrs.	Exercise ends.

9th May.	Conference.
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NOTE.—It will be necessary for the director to hold conferences of his directing staff at intervals during the exercise to co-ordinate action and note points of importance.

APPENDIX V*

THE MILITARY MANŒUVRES ACTS, 1897 AND 1911

The following is a short précis of the Military Manœuvres Acts. Staff and regimental officers should have a working knowledge of the Acts, and other ranks should know what powers are conferred or restrictions imposed on them by these Acts :—

Points to be noted by officers concerned in arranging for manœuvres

1. Under the Act of 1897, manœuvres are authorized by Order in Council made by His Majesty; the draft Order has to be sent to the Council of each county, county borough, district, and parish wholly or partly within the proposed area, and in the case of the New Forest to the Court of Verderers, not less than six months before the Order is to come into force, but if sent before 31st March this period is reduced to four months; the draft Order also has to lie before each House of Parliament for 30 sitting days.
2. Under the Acts, manœuvres may only take place over the same area once in every five years, but by the consent of the council of the county or borough concerned this proviso may be waived in respect of any particular area. It should be noted that in the case of any area situated in the New Forest the consent of the Commissioners of Crown Lands and the Forestry Commission and of the Court of Verderers is required.
3. Whenever the Order in Council is made a Military Manœuvres Commission is appointed; it consists of members appointed by the County Councils and County Borough Councils wholly or partly within the proposed area together with a certain smaller number of members appointed by the Secretary of State for War. The Military Manœuvres Commission decides whether the whole of the proposed area is

* It should be noted that this Appendix is a précis only of the Manœuvres Acts and is included here solely for general information. Where difficulties arise as to the powers conferred or restrictions imposed by these Acts reference should be made to the Acts in original.

5. Compensation is paid by the military authorities for any damage to person or property caused either by the troops themselves or by the presence of troops, or for any damage to roads caused by excessive weight or extraordinary traffic.

6. The commander of the troops is empowered to prevent trespass or damage to property by spectators and others, and it should be particularly noted that the military authorities may be held liable, under certain conditions, for damage done by spectators.

7. Any general or field officer may be authorized by justices of the peace to close any roads within the area to traffic for not more than six hours daily. Reasonable facilities for traffic (e.g., doctors, market produce, or urgent traffic) must be given during that period, and the authorized officer in question must give such publicity of his intention to close roads as he may consider practicable.

Justices of the peace may authorize the closing of roads and footpaths other than county, main or parish roads for a period not exceeding 48 hours; they may also, when sitting in Petty Sessions, authorize the closing of a county, main or parish road for a period not exceeding 12 hours, but in this case seven days' notice of the intended application to the justices must be made in the local Press; such public notices as the justices may require must be given not less than 12 hours before the order authorizing the closing of the road or footpath comes into force, and the same facilities for traffic as mentioned above must also be given.

8. Any person who—

- i. wilfully and unlawfully interferes with the execution of the manœuvres;
- ii. without authority enters or remains in any camp;
- iii. removes distinguishing notices or erects unauthorized notices, such as "out of bounds" notices, etc.;
- iv. damages field telegraph wires;

is liable to be fined, on summary conviction, and in the case of i. and ii. may be removed by any police constable, or by, or by order of, any commissioned officer.

APPENDIX VI

COMPENSATION

1. General Instructions

The following paragraphs apply entirely to manoeuvres held when the Military Manoeuvres Act, 1897 and 1911 (see Appendix V), are put into force, the arrangements for manoeuvres under the Act are made either by the War Office direct or by commands under instructions from the War Office; these are referred to in the following paragraphs as "Army Manoeuvres" and "Command Manoeuvres" respectively. In both cases, however, the steps to obtain the Order in Council and to set up the Military Manoeuvres Commission, etc., are undertaken by the War Office.

2. Military Manoeuvres Commission

The Military Manoeuvres Commission makes regulations with respect to compensation and with the concurrence of the Treasury (which is obtained by the War Office) appoints compensation officers. These are, in practice, military officers appointed as "chief compensation officer" and "compensation officers," on the recommendation of the Army Council. In some cases civilian land valuers are also appointed as "civil compensation officers." It is customary for a military officer to be appointed Secretary to the Commission on the recommendation of the Army Council.

3. Chief compensation officer

1. It is advisable that the officer whom it is proposed to recommend for the position of chief compensation officer should be a member of the Army Council.

the results of his reconnaissance of the manœuvre area, especially as regards any portions of it which it is advisable to place out of bounds.

2. The duties of the chief compensation officer will be as follows:—

- i. He will be responsible to the Military Manœuvres Commission for the assessment and payment of all claims for compensation arising from the putting into force any of the provisions of the Military Manœuvres Acts, and will arrange that, as far as possible, all claims are dealt with on the spot.
- ii. He will organize the compensation officers under his command into—
 - (a) Area compensation officers;
 - (b) Road compensation officers;and will issue to them general instructions on all matters affecting their duties.
- iii. He will correspond on financial matters relating to claims for compensation with the command paymaster of the command in which the manœuvres are being carried out, or, where more than one command is concerned, with the command paymaster of a command selected by the Army Council.

3. The chief compensation officer should have early information of the position of standing camps. He will fix his headquarters in the locality most convenient for the performance of his duties, and will be furnished with an establishment of clerks. It is essential that he and the officers employed under him should receive full information as to the general plan of manœuvres and daily operations from the directing and other staffs, to enable them to follow the movements of the troops and arrange for recording any consequent damages, but this information must in all cases be treated as strictly confidential.

4. Area compensation officers

1. Area compensation officers should be field officers or senior captains. Retired or reserve officers are often employed on this duty. Officers on the active list, while employed as compensation officers, will be relieved from all other duties and they, and officers on the retired list so employed, will

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 - (a) Area compensation officers;
 - (b) Road compensation officers;and will issue to them general instructions on all matters affecting their duties.
- iii. He will correspond on financial matters relating to claims for compensation with the command paymaster of the command in which the manœuvres are being carried out, or, where more than one command is concerned, with the command paymaster of a command selected by the Army Council.

3. The chief compensation officer should have early information of the position of standing camps. He will fix his headquarters in the locality most convenient for the performance of his duties, and will be furnished with an establishment of clerks. It is essential that he and the officers employed under him should receive full information as to the general plan of manœuvres and daily operations from the directing and other staffs, to enable them to follow the movements of the troops and arrange for recording any consequent damages, but this information must in all cases be treated as strictly confidential.

4. Area compensation officers

1. Area compensation officers should be field officers or senior captains. Retired or reserve officers are often employed on this duty. Officers on the active list, while employed as compensation officers, will be relieved from all other duties and they, and officers on the retired list so employed, will

receive acting staff pay under the Pay Virement 1931 Article 331 or 332. The area to be allotted to each officer will be defined by the chief compensation officer. The size of areas must necessarily vary according to the nature of the country and of the operations which are likely to take place in the areas. For instance, areas on open land must be considerably larger than areas on or near land in which are intersected by hedgerows. Areas will also be determined by small or large bodies of troops are expected to operate over them.

2. Area compensation officers will visit the areas with maps of the manor and general information as to their duties, will proceed to the ground in advance of the manoeuvres to examine the areas and to make their selection of areas thoroughly. When manor maps of a district are contemplated, at least a district where the troops are to operate will, as a rule, be necessary. The area compensation officers will make themselves acquainted with the landowners and farmers within their areas. They will note the condition of roads, bridges, gates, etc., and will advise the arrival of the troops. When troops are moving in an area the area compensation officer will act as liaison with the main body.

3. An area compensation officer will not leave his own area unless so ordered by the chief compensation officer. He will be given as free a hand as possible in his area and his headquarters should be at a convenient central place. He will, if possible, be in frequent communication with the chief compensation officer.

4. Damage to standing crops and other crops (corn, etc.) should be assessed and assessed before the arrival of the troops. In the case of standing crops, the damage should be assessed at a month.

Each crop or branch should be assessed before the arrival, and immediately after the departure, of the main body of the troops.

5. Royal compensation officers

1. Royal compensation officers who should, when possible, be Royal Engineers officers, will be charged solely with noting the condition of the roads, bridges, gates, etc., in the manor.

ground and those traversing the whole area over which the troops will move. The conditions of their employment will be similar to those laid down above for area compensation officers: for large manœuvres they should proceed to the manœuvre area about three weeks before the arrival of the troops. They will carefully note, in conjunction with the county or district surveyors, the condition of all roads, bridges, culverts, etc., before any movement of troops takes place.

2. If a road is in a very indifferent condition before the start of manœuvres, the attention of the county or district council should be drawn to it and its state noted, more especially if a large amount of traffic is expected to pass over the road during the operations.

3. Road compensation officers will follow movements of troops along the road and note any damage which has been done.

4. A second inspection should be made subsequently, but should not take place till some time after the completion of the manœuvres and, preferably, after rain has fallen.

5. The local representative of the Ministry of Transport should be consulted before the conclusion of negotiations with local authorities regarding claims for compensation.

6. Civil compensation officers

Civil compensation officers (*see* Sec. 2 of this Appendix) may be consulted by the chief compensation officer on any matter which he has been unable to decide. They should have a good knowledge of farming, land valuing, road making, etc.

7. Secretary to the Military Manœuvres Commission and staff officer to the chief compensation officer

1. The Secretary to the Military Manœuvres Commission should usually be the staff officer to the chief compensation officer, and should take up his preliminary duties about six months before the beginning of army manœuvres.

2. He will assist the chief compensation officer by making a general reconnaissance of the manœuvre area, with the object of enlisting the goodwill and support of the chief landowners,

Appendix VI

farmers and others he should keep in the Military Training Directorate of the G

3 He is responsible for obtaining information from the civil police for circulating the information in the following section and for seeing that the regulations the Military Manoeuvres

4 He will send the names and addresses of road compensation officers to the Office asking him to notify all post in the area.

5 All communications between the Military Manoeuvres Committee and the Secretary

6 Circulation of information in the area of the manoeuvres
1 The names of all compensation officers in the area of the manoeuvres will be sent to the Secretary Military Manoeuvres Committee before the start of the manoeuvres

2 Posters will be distributed throughout the area as arranged by the Secretary Military Manoeuvres Committee generally with the aid of the local authorities. The posters shall contain information and be signed by the Secretary Military Manoeuvres Committee

3 The names of all military and naval compensation officers in the area with which each officer deals shall be sent to the Secretary Military Manoeuvres Committee before the start of the manoeuvres. The distinguishing badge of a compensation officer shall be sent to the Secretary Military Manoeuvres Committee before the start of the manoeuvres. To whom claims must be submitted and the time by which they must be lodged the regulations shall be sent to the Secretary Military Manoeuvres Committee before the start of the manoeuvres. The form of claim to be submitted shall be sent to the Secretary Military Manoeuvres Committee before the start of the manoeuvres. Information that should be obtained on the claim and the form of claim can be obtained from the Secretary Military Manoeuvres Committee before the start of the manoeuvres.

4 Information that in the event of the award of compensation approved by the chief compensation officer being disputed the arbitration as provided in the Military Manoeuvres Act of 1897 may refer the same to the arbitration committee for the Military Manoeuvres

- vi. A warning to all owners of animals to keep their stock together, so as to enable them to be easily placed in folds, yards, or places of safety should it be necessary to do so while troops are operating in the vicinity.
 - vii. Notices to the effect that compensation officers will deal direct only with persons to whose property damage has been done, and that farmers, etc., employing valuers do so entirely at their own expense.
3. Notices will be served through the area compensation officers who, whenever necessary, will obtain the assistance of the civil police, as to hours and times during which animals should be kept in places of security. As long notice as possible should be given. Whenever, owing to suddenness of movement, it is necessary for an officer other than the area compensation officer to give this notice direct, the area compensation officer should at once be informed. Provision is made in the Military Manœuvres Acts whereby any person who without reasonable cause fails to comply with the regulation shall not be entitled to compensation for any damage caused to his property by reason of his default.

9. Claims

1. Claims for all damage must be submitted to the area or road compensation officer, as the case may be, within the time specified by the Military Manœuvres Commission usually within seven days of the alleged commission of the damage, except in the case of damage to roads, when 14 days is preferable: no claims will be entertained unless submitted within that time. Claims for compensation for damage other than for damage to roads must be made on A.F. A 2451, those for damage to roads on A.F. A 2452. Area and road compensation officers will issue forms of claim to applicants only. No indiscriminate distribution of these forms will be made in districts. On receipt of the claim, the alleged damage must be immediately inspected by the officer concerned, who will, if possible, at the same time assess the compensation to be paid. It is advisable that claims should be settled, as far as possible, on the spot. Area compensation officers may therefore be authorized by the chief compensation officer to satisfy all claims up to £15 without

reference to him, unless they have doubts as to the genuineness of the claim, or the amount claimed cannot be referred to a reasonable figure. They will receive a sum on deposit to enable them to settle claims on the spot. All claims, whether the amount of compensation can be immediately assessed or not, will be signed by the area or road compensation officer as the case may be and transmitted by him to the chief compensation officer together with a daily statement of all sums paid out or cheques issued.

2. If it is found that a claim is of such a nature that it cannot be immediately assessed, the claimant will be duly informed that it is noted for subsequent assessment.

3. Any case of dispute will be referred to the chief compensation officer. Claims which cannot be acted by the chief compensation officer will be referred to arbitration as provided for in the Military Manoeuvres Act of 1924.

4. In the case of command manoeuvres all payments to Highway authorities will be reported through command headquarters, to the Ministry of Transport (Roads Dept.) with particulars as to the roads affected. In the case of army manoeuvres, the notification will be sent by the War Office.

10. Tel-grams

The compensation officers may transmit military telegrams on matters connected with their duties.

11. Hiring of camps

(1. The compensation officers are concerned only with claims for damage to land occupied under the Military Manoeuvres Acts without formal agreement. The hiring of camps under a formal agreement should accordingly be left to the command staffs. The command staffs are in the command in which manoeuvres are to take place should prepare a memorandum as a general guide to command staffs regarding the rules and conditions of hiring in the neighbourhood where the manoeuvres are to take place and should be prepared to advise in cases of difficulty. In the case of army manoeuvres the memorandum will be forwarded to the War Office, in order that it may be incorporated in a handbook on compensation which is issued by the War

Office for the manoeuvres. If the memorandum can be prepared in good time, this system should secure a reasonable uniformity of payment. If, however, excessive rates are demanded, the land should be used without prior agreement, compensation for actual damage and loss being assessed afterwards.

2. In cases of exceptional damage to hired ground, owing to wet weather or other causes, it will be open to the command, in consultation with the chief compensation officer, to make an additional payment at a later stage.

3. The plan of making agreements beforehand prevents to a great extent doubt or disputes as to the amount to be paid and is the most suitable for standing camps, rest camps, and camps of assembly; but for bivouacs and dispersal camps the plan of assessing compensation afterwards for actual damage and loss is preferable. A.F. K 1334 should be used for the hire of land.

12. Orders to be issued to the troops

1. Special orders as regards the prevention of damage will be issued either by the War Office or by the headquarters of the command or commands concerned before the commencement of manoeuvres.

2. Officers commanding units will be held responsible for reporting to the compensation officers (a) damage committed by men under their command either when in camp or during manoeuvres, whether such damage be wilful or the result of military operations, and (b) the site of every bivouac or camp occupied

officers commanding independent districts, so that the maximum use may be obtained from the maps provided.

7. Commands abroad which depend wholly or in part on local survey departments for their map supply will purchase locally as may be necessary, reporting particulars to the War Office on each occasion. To meet these cases, annual financial allotments are made in the cases of Egypt, Ceylon, and Malaya. These commands will report annually in September whether any change can be foreseen in the amount required for the following financial year.

8. Copies of the map catalogues (and amendments) published by the Geographical Section, General Staff, are issued for use at the headquarters of commands and independent districts, with additional copies for distribution within the commands, etc. Commands abroad should also be in possession of the catalogues of local survey departments.

9. A map account will be maintained by command and district headquarters and commandants of schools, etc. Unserviceable maps will be written off on the authority of the general officers commanding-in-chief, general officers commanding independent districts, commandants of schools, etc.

2. Procedure for demanding maps

1. Demands forwarded to the War Office will be submitted in triplicate on A.F. L 1887 (for ordinary maps or plans) or A.F. L 1876 (for confidential maps or plans). When supply is made, an invoice will be sent in duplicate, one copy for retention, the other for signature and return both being given a serial receipt voucher number. This does not apply to purchases made by a command abroad from a local survey department.

2. Maps will be defined on demands by:—

- i. the name and scale of the series, e.g. England and Wales, 1-inch, or the reference number, if any, its publishing authority, e.g. G.S.G.S., No. 3 (generally to be found at the left-hand bottom corner outside the margin);
- ii. the edition, if there have been more than one;
- iii. the number or title of the sheet or sheets required.

Index maps are available for most map series and should be referred to when demands are prepared.

Appendix VII

3. A single indent form may deal with maps of any scale, regardless of the publishing authority, with the exception of the following Ordnance Survey of Great Britain:-

- i. Unscaled 1 inch to 1 mile and smaller scales
- ii. 6 inches to 1 mile scale
- iii. 1:2,500 scale

A separate indent form will be used for each of those three categories.

3. Maps for adult educational training

1. Maps for adult educational training purposes are a special category of maps. They are issued with the following conditions:-
 i. They are issued in the form of a map.
 ii. They are issued in the form of a map.
 iii. They are issued in the form of a map.
 of D.O.M. and i, and are issued in the form of a map.
 appendix.

2. Copies of the special maps prepared for examination purposes for 1st class certificates of education are distributed to commands, etc., as soon as possible after each examination, to assist in educational training.

Commands will inform the War Office (D.O.M.) of the quantities required of the map for the 1st class examination by 1st October preceding and for the 2nd class examination by 1st May preceding. It will not be possible to make subsequent indents, as only the quantities estimated will be issued.

4. Maps and plans for engineering works

1. Maps and plans for engineering works are issued in the following quantities:-
 i. 1 copy for each command.
 ii. 1 copy for each command.
 iii. 1 copy for each command.

5. Scales of issue of maps for educational training

1. Scales of issue of maps for educational training are as follows:-
 i. 1 copy for each command.
 ii. 1 copy for each command.
 iii. 1 copy for each command.

- i. Officers
- ii. Warrant officers and sergeants
- iii. Rank and file

Serial No.	Formation or Unit	Small scale maps *	Medium scale maps *	Large scale maps *
		(b)	(c)	(d)
1	H.Q. of formations (including H.Q. of divisional troops and Bdes. of all arms).	i. 100% ii. 100% iii. 20%	i. 100% ii. 100% iii. 50%	i. 100% ii. 100% iii. 20%
2	Cavalry regiment	i. 100% ii. 100% iii. 10%	i. 100% ii. 100% iii. 100%	i. 100% ii. 25% iii. 3%
3	Cavalry A.C. regiment and R.T.C. A.C. company.	i. 100% ii. 100% iii. 110%	i. 100% ii. 100% iii. 110%	i. 100% ii. 25% iii. 2%
4	Battery, R.A.	i. 100% ii. 33% iii. 5%	i. 100% ii. 100% iii. 10%	i. 100% ii. 10% iii. 100%
5	Squadron or company, R.E. ...	i. 100% ii. 25% iii. 2%	i. 100% ii. 100% iii. 20%	i. 100% ii. 50% iii. 10%
6	Troop or company R. Signals or signal section (non-divisional units).	i. 100% ii. 50% iii. 10%	i. 100% ii. 100% iii. 30%	i. 100% ii. 25% iii. 10%
7	Infantry battalion	i. 100% ii. 50% iii. 2%	i. 100% ii. 100% iii. 25%	i. 100% ii. 20% iii. 100%
8	Tank battalion	i. 100% ii. 50% iii. 2%	i. 100% ii. 100% iii. 25%	i. 100% ii. 20% iii. 20%
9	Company, R.A.S.C.	i. 100% ii. 100% iii. 75%	i. 100% ii. 100% iii. 75%	i. 100% ii. 100% iii. 50%
10	Field ambulance, R.A.M.C. ...	i. 100% ii. 25% iii. 10%	i. 100% ii. 25% iii. 10%	i. 100% ii. 25% iii. 10%
11	Mobile veterinary section ...	i. 100% ii. 50% iii. —	i. 100% ii. 100% iii. —	i. 100% ii. 100% iii. —
12	Ordnance workshop	i. 100% ii. 25% iii. 2%	i. 100% ii. 25% iii. 2%	i. 100% ii. 25% iii. 2%

* See Sec. 12. The relative maps available in 1/4-inch to 1-inch, the 1-inch to 1 mile and the 1 respectively.

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